# Route 680/880 Cross Connector Study

# Summary Cost Estimate

## Short-Term Projects

			Design	
	Construction	Right of Way	Engineering	<b>Estimated Total</b>
Project Description	Cost	Cost	Management	Project Cost
A1A Auto Mall Parkway Widening to Six Lanes	\$13,900,000	\$1,200,000	\$6,500,000	\$21,600,000
R18 Framont/Grimmer Widen At Grade to Six I anes	\$22,000,000	\$21,000,000	\$10,400,000	\$53,400,000
D3A Kato Boad with Naw I-880 Overcrossing to Fremont Blvd	\$14.100.000	\$18,000,000	\$6,700,000	\$38,800,000
E1A Calaveras/237 Widening to Six Lanes	\$19,100,000	\$6,900,000	\$9,000,000	\$35,000,000
				\$148,800,000

### Long-Term Projects

	1116			
			Design	
	Construction	Right of Way	Engineering	<b>Estimated Total</b>
Project Description	Cost	Cost	Management	Project Cost
R2C Fremont/Grimmer 2-Lane Elevated HOV Freeway	\$90,300,000	\$88,200,000	\$42,700,000	\$221,200,000
C1A Mission Blvd Tunnel - Mixed Flow (4 Lanes)	\$315,200,000	\$2,300,000	\$149,000,000	\$466,500,000
	\$595,000,000	\$2,400,000	\$281,000,000	\$878,400,000
	\$33,400,000	\$12,800,000	\$15,800,000	\$62,000,000
E3A Calaveras/237 2-Lane Elevated HOV Along Serra/Los Coches	\$93,100,000	\$42,000,000	\$44,000,000	\$179,100,000
	\$78,900,000	\$18,400,000	\$37,300,000	\$134,600,000
F3D Montague 680 Direct Elevated HOV	\$46,200,000	\$22,300,000	\$21,800,000	\$90,300,000

### NOTES

- 1. The above figures are intended to be used for cost comparison between the different alternatives only. All costs are estimated using the same methodology, though they are not meant to represent a precise total cost.
- 2. Includes cost of Warren Avenue grade separation as obtained from City of Fremont. The construction cost is \$20 Million and relocation of existing businesses cost is \$20 Million (included as R/W cost).



Improvement: A1A I680-I880 - Automall Widen 6 lanes (Grimmer Corridor)

Date: February 2004

<u>ltem</u>	<u>Description</u>		Cost	<u>%</u>
1	Earthwork	\$	873,500	
2	Pavement	\$	3,092,250	
3	Landscaping	\$	-	
4	Structures:			
	a. Railway Over pass	\$	759,500	
	b. 680 Overpass	\$	676,200	
	c. Sidewalk	\$	1,311,300	
	d.			
	е.			
	f.			
5	Soundwalls	\$	-	
6	Miscellaneous:			
	a. Ramp Metering System	\$	100,000	
	b. <u>ITS</u>	\$	400,000	
	c. Traffic Signals	\$	300,000	
	d. Barriers & Guardrails	\$	244,800	
7	Subtotal 1:		7,757,550	
8	Advance Work (Based on DETAIL A - see page 2)	\$	823,852	
9	Drainage (0% to 20% of Subtotal 1)*	\$	155,151	2%
10	Signing (0% to 5% of Subtotal 1)*	\$	54,303	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$	-	0%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$	108,606	1%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$	426,665	6%
14	Subtotal 2:		1,568,577	
15	Subtotal 3 (Subtotals 1 + 2):		9,326,127	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$	932,613	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)		10,258,739	
18	Construction Contingency (35% of Subtotal 4)	\$	3,590,559	
19	Construction Subtotal:	\$	13,849,298	[1]
20	Planning/Environmental Doc. (10% of [1])	\$	1,384,930	
21	Design Engineering & Management (15% of [1])	\$	2,077,395	
22	Construction Engineering & Management (10% of [1])	\$	1,384,930	
23	Subtotal 5:		4,847,254	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$	1,696,539	
25	Planning/Engineering Subtotal:	- T	6,543,793	
20				
26	Land, Easements and Right of Way Subtotal	\$	911,510	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$	319,029	
28	Planning/Engineering/ROW Subtotal:	\$	7,774,332	[2]
29	Total ( [1] + [2] ):	\$ :	21,623,630	
30	or Estimated as:	\$ 2	21,600,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: A1A I680-I880 - Automall Widen 6 lanes (Grimmer Corridor)

Date: February 2004

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 823,852	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ 232,727	3%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 465,453	6%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 125,672	2%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: B1B I680-I880 - Freemont (Grimmer Corridor)

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
1	Earthwork	\$ 1,240,000	
2	Pavement	\$ 6,825,000	
3	Landscaping	\$ -	
4	Structures:		
	a. SB i680 Bridge	\$ 286,062	
	b. NB I680 Bridge	\$ 415,540	
	c. Retaining Walls	\$ 2,475,000	
	d		
	e		
	f		
5	Soundwalls	\$ -	
6	Miscellaneous:		
	a. Ramp Metering System	\$ 100,000	
	b. ITS	\$ 400,000	
	c. Traffic Signals	\$ 600,000	
	d		
7	Subtotal 1:	\$ 12,341,602	
8	Advance Work (Based on DETAIL A - see page 2)	\$ 1,209,477	
9	Drainage (0% to 20% of Subtotal 1)*	\$ 222,149	2%
10	Signing (0% to 5% of Subtotal 1)*	\$ 617,080	5%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$ -	0%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$ 123,416	1%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$ 246,832	2%
14	Subtotal 2:	. , ,	
15	Subtotal 3 (Subtotals 1 + 2):	\$ 14,760,556	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$ 1,476,056	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$ 16,236,612	
18	Construction Contingency (35% of Subtotal 4)	\$ 5,682,814	
19	Construction Subtotal:	\$ 21,919,426	[1]
	•	-	
20	Planning/Environmental Doc. (10% of [1])	\$ 2,191,943	
21	Design Engineering & Management (15% of [1])	\$ 3,287,914	
22	Construction Engineering & Management (10% of [1])	\$ 2,191,943	
23	Subtotal 5:	\$ 7,671,799	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$ 2,685,130	
25	Planning/Engineering Subtotal:	\$ 10,356,929	
	•		
26	Land, Easements and Right of Way Subtotal	\$ 15,500,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$ 5,425,000	
28	Planning/Engineering/ROW Subtotal:	\$ 31,281,929	[2]
29	Total ( [1] + [2] ):	\$ 53,201,354	
30	or Estimated as:		
30	or Estimated as.	Ψ 00,200,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: B1B I680-I880 - Freemont (Grimmer Corridor)

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 1,209,477	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ 123,416	1%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 617,080	5%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 160,441	1%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ 308,540	3%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: B2C I680-I880 - Freemont (Grimmer Corridor)

Date: February 2004

<u>ltem</u>	<u>Description</u>		<u>Cost</u>	<u>%</u>
1	Earthwork	\$	1,715,000	
2	Pavement	\$	6,536,400	
3	Landscaping	\$	-	
4	Structures:			
	a. 2-Lane HOV Bridge	\$	44,736,300	
	b. Retaining Walls	\$	2,850,000	
	C.	Ť	_,	
	d.			
	e.			
	f.			
5	Soundwalls	\$	1,440,000	
6	Miscellaneous:	Ŧ	.,,	
-	a. Traffic Control Systems	\$	150,000	
	b. Transportation Management Plan	\$	150,000	
	c. Barriers and Guardrails	\$	360,000	
7	Subtotal 1:	\$	57,937,700	
8	Advance Work (Based on DETAIL A - see page 2)	\$	2,114,726	
9	Drainage (0% to 20% of Subtotal 1)*	\$	231,751	0%
10	Signing (0% to 5% of Subtotal 1)*	\$	144,844	0%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$	-	0%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$	144,844	0%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$	202,782	0%
14	Subtotal 2:	Ė	2,838,947	
15	Subtotal 3 (Subtotals 1 + 2):	\$	60,776,647	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$	6,077,665	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$	66,854,312	
18	Construction Contingency (35% of Subtotal 4)	\$	23,399,009	
19	Construction Subtotal:	\$	90,253,321	[1]
13	Constituction Subtotal.	Ψ	30,233,321	r.1
20	Planning/Environmental Doc. (10% of [1])	\$	9,025,332	
21	Design Engineering & Management (15% of [1])	\$	13,537,998	
22	Construction Engineering & Management (10% of [1])	\$	9,025,332	
23	Subtotal 5:	\$	31,588,662	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$	11,056,032	
25	Planning/Engineering Subtotal:	\$	42,644,694	
26	Land, Easements and Right of Way Subtotal	Ф	65,250,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$	22,837,500	
28	Planning/Engineering/ROW Subtotal:	_		[2]
_0				r-1
29	Total ( [1] + [2] ):	\$	220,985,516	
30	or Estimated as:	\$	221,000,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: B2C I680-I880 - Freemont (Grimmer Corridor)

Date: February 2004

<u>Item</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 2,114,726	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ 144,844	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 695,252	1%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 695,252	1%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ 579,377	1%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: C1A Mission Boulevard between I-880 & I-680

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
1	Earthwork	\$ 5,343,600	
2	Pavement	\$ 7,383,150	
3	Landscaping	\$ -	
4	Structures:		
	a. CIP Concrete Tunnel	\$ 180,600,000	
	b. Sidewalk	\$ 1,448,200	
	c. Curb & Gutter	\$ 227,520	
	d. Retaining walls	\$ 5,207,250	
	e		
	f	•	
5	Soundwalls	\$ -	
6	Miscellaneous:	<b>* * * * * * * * * *</b>	
	a. Ramp Metering System	\$ 500,000	
	b. ITS	\$ 500,000	
	c. Traffic Signals	\$ 400,000	
7	d.	£ 204 600 720	
7	Subtotal 1:	\$ 201,609,720	
8	Advance Work (Based on DETAIL A - see page 2) Drainage (0% to 20% of Subtotal 1)*	\$ 1,965,695 \$ 5,241,853	3%
9 10	Signing (0% to 5% of Subtotal 1)*	\$ 5,241,853 \$ 2,028,194	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$ 2,028,194	0%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$ 1,008,049	1%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$ 201,610	0%
14	· · · · · · · · · · · · · · · · · · ·	\$ 10,647,009	070
15	Subtotal 3 (Subtotals 1 + 2):	\$ 212,256,729	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$ 21,225,673	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$ 233,482,402	1070
18	Construction Contingency (35% of Subtotal 4)	\$ 81,718,841	
19	Construction Subtotal:		[1]
10	Contain Cubician	Ψ 0 10,201,240	r.1
20	Planning/Environmental Doc. (10% of [1])	\$ 31,520,124	
21	Design Engineering & Management (15% of [1])	\$ 47,280,186	
22	Construction Engineering & Management (10% of [1])	\$ 31,520,124	
23	Subtotal 5:		
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$ 38,612,152	
25	Planning/Engineering Subtotal:	\$ 148,932,587	
		. , ,	
26	Land, Easements and Right of Way Subtotal	\$ 1,700,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$ 595,000	
28	Planning/Engineering/ROW Subtotal:	\$ 151,227,587	[2]
	·		
29	Total ( [1] + [2] ):	\$ 466,428,830	
30	or Estimated as:	\$ 466,400,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: C1A Mission Boulevard between I-880 & I-680

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 1,965,695	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ 50,402	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 705,634	0%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 1,209,658	1%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: C1D Mission Boulevard between I-880 & I-680

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
1	Earthwork	\$ 10,989,900	
2	Pavement	\$ 6,123,600	
3	Landscaping	\$ -	
4	Structures:		
	a. CIP Concrete Tunnel	\$ 367,150,000	
	b. Sidewalk	\$ 1,448,200	
	c. Curb & Gutter	\$ 227,520	
	d. Retaining walls	\$ 2,160,000	
	e		
	f	•	
5	Soundwalls	\$ -	
6	Miscellaneous:	Φ 450.000	
	a. Ramp Metering System	\$ 150,000	
	b. ITS	\$ 500,000 \$ 200,000	
	c. <u>Traffic Signals</u> d.	\$ 200,000	
7		\$ 388,949,220	
8	Advance Work (Based on DETAIL A - see page 2)	\$ 2,411,485	
9	Drainage (0% to 20% of Subtotal 1)*	\$ 7,001,086	2%
10	Signing (0% to 5% of Subtotal 1)*	\$ 700,109	0%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$ 97,237	0%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$ 1,089,058	0%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$ 194,475	0%
14	Subtotal 2:	\$ 11,493,449	
15	Subtotal 3 (Subtotals 1 + 2):	\$ 400,442,669	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$ 40,044,267	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$ 440,486,936	
18	Construction Contingency (35% of Subtotal 4)	\$ 154,170,428	
19	Construction Subtotal:		[1]
	·	. , ,	• •
20	Planning/Environmental Doc. (10% of [1])	\$ 59,465,736	
21	Design Engineering & Management (15% of [1])	\$ 89,198,605	
22	Construction Engineering & Management (10% of [1])	\$ 59,465,736	
23	Subtotal 5:	\$ 208,130,077	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$ 72,845,527	
25	Planning/Engineering Subtotal:	\$ 280,975,605	
26	Land, Easements and Right of Way Subtotal	\$ 1,750,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$ 612,500	
28	Planning/Engineering/ROW Subtotal:	\$ 283,338,105	[2]
29	Total ( [1] + [2] ):	\$ 877,995,469	
30	or Estimated as:	\$ 878,000,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: C1D Mission Boulevard between I-880 & I-680

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 2,411,485	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 1,244,638	0%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 1,166,848	0%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: D3A Kato road west of Milmont drive and Scott Road cost estimate.

Date: February 2004

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
1	Earthwork	\$ 757,250	
2	Pavement	\$ 2,365,500	
3	Landscaping	\$ -	
4	Structures:		
	a. I880 Overpass	\$ 1,501,500	
	b. Barriers and Guardrail	\$ 181,800	
	c. Retaining Walls	\$ 2,493,750	
	d. Sidewalk	\$ 287,500	
	e.		
	f.		
5	Soundwalls	\$ -	
6	Miscellaneous:		
	a. Ramp Metering System	\$ 100,000	
	b. ITS	\$ 50,000	
	c. Traffic Signals	\$ 400,000	
	d.		
7	Subtotal 1:	\$ 8,137,300	
8	Advance Work (Based on DETAIL A - see page 2)	\$ 358,041	
9	Drainage (0% to 20% of Subtotal 1)*	\$ 650,984	8%
10	Signing (0% to 5% of Subtotal 1)*	\$ 110,789	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$ 56,961	1%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$ 105,785	1%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$ 105,785	1%
14	Subtotal 2:	\$ 1,388,345	
15	Subtotal 3 (Subtotals 1 + 2):	\$ 9,525,645	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$ 952,565	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$ 10,478,210	
18	Construction Contingency (35% of Subtotal 4)	\$ 3,667,373	
19	Construction Subtotal:	\$ 14,145,583	[1]
20	Planning/Environmental Doc. (10% of [1])	\$ 1,414,558	
21	Design Engineering & Management (15% of [1])	\$ 2,121,838	
22	Construction Engineering & Management (10% of [1])	\$ 1,414,558	
23	Subtotal 5:	\$ 4,950,954	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$ 1,732,834	
25	Planning/Engineering Subtotal:		
26	Land, Easements and Right of Way Subtotal	\$ 13,619,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$ 4,766,650	
28	Planning/Engineering/ROW Subtotal:		[2]
29	Total ( [1] + [2] ):	\$ 39,215,022	
30	or Estimated as:	\$ 39,200,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: D3A Kato road west of Milmont drive and Scott Road cost estimate.

Date: February 2004

<u>Item</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 358,041	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ 89,510	1%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 105,785	1%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 162,746	2%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: E1A I680-I880 - Calaveras (widen 6)

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
1	Earthwork	\$ 489,875	
2	Pavement	\$ 2,799,750	
3	Landscaping	\$ -	
4	Structures:		
	a. Main street overpass	\$ 4,635,400	
	b. Railroad overpass	\$ 2,295,000	
	c. Barriers and Guardrails	\$ 144,000	
	d		
	e		
	f		
5	Soundwalls	\$ -	
6	Miscellaneous:		
	a. Ramp Metering System	\$ 100,000	
	b. ITS	\$ 50,000	
	c. Traffic Signals	\$ 500,000	
	d. Sidwalk	\$ 615,000	
7	Subtotal 1:		
8	Advance Work (Based on DETAIL A - see page 2)	\$ 483,884	407
9	Drainage (0% to 20% of Subtotal 1)*	\$ 150,014	1%
10	Signing (0% to 5% of Subtotal 1)*	\$ 75,007	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$ 100,010	1%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$ 125,012 \$ 300,029	1%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	. ,	3%
14	Subtotal 2:		
15	Subtotal 3 (Subtotals 1 + 2):		400/
16	Mobilization (as % of Subtotal 3; 10% is default)	\$ 1,286,298	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$ 14,149,279	
18	Construction Contingency (35% of Subtotal 4)	\$ 4,952,248	
19	Construction Subtotal:	\$ 19,101,527	[1]
20	Planning/Environmental Doc. (10% of [1])	\$ 1,910,153	
21	Design Engineering & Management (15% of [1])	\$ 2,865,229	
22	Construction Engineering & Management (10% of [1])	\$ 1,910,153	
23	Subtotal 5:	\$ 6,685,534	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$ 2,339,937	
25	Planning/Engineering Subtotal:		
00	Land Facements and Dight of May Cubtate!	¢ 5400.000	
26	Land, Easements and Right of Way Subtotal	\$ 5,133,000 \$ 1,796,550	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)		[0]
28	Planning/Engineering/ROW Subtotal:	\$ 15,955,021	[2]
29	Total ( [1] + [2] ):	\$ 35,056,548	
30	or Estimated as:	\$ 35,100,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: E1A I680-I880 - Calaveras (widen 6)

Date: November 2003

<u>Item</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 483,884	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 421,436	4%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ -	0%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ 62,448	1%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: E3A I680-I880 - Calaveras Including median connection from overhead HOV.

Date: November 2003

<u>ltem</u>	<u>Description</u>	<u>Cost</u>	<u>%</u>
1	Earthwork	\$ 733,035	
2	Pavement	\$ 2,926,950	
3	Landscaping	\$ -	
4	Structures:		
	a. Overhead HOV Structure	\$ 50,625,000	
	b. Sidewalk	\$ 200,000	
	c. Retaining Walls	\$ 2,247,000	
	d. Barriers and Guardrails	\$ 1,581,120	
	e		
	f	•	
5	Soundwalls	\$ -	
6	Miscellaneous:		
	a. Ramp Metering System	\$ 500,000	
	b. ITS	\$ 150,000	
	c. Traffic Signals	\$ 500,000	
_	d. Sidewalk	\$ 200,000	
7	Subtotal 1:	\$ 59,663,105	
8	Advance Work (Based on DETAIL A - see page 2)	\$ 799,665	00/
9	Drainage (0% to 20% of Subtotal 1)*	\$ 249,988	0%
10	Signing (0% to 5% of Subtotal 1)*  Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$ 600,211	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)* Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$ 99,995 \$ 1,002,340	0% 2%
12 13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$ 1,002,340 \$ 300,105	1%
14	Subtotal 2:	· ·	I /0
15	Subtotal 2. Subtotal 3 (Subtotals 1 + 2):	. ,	
	·	\$ 6,271,541	10%
16	Mobilization (as % of Subtotal 3; 10% is default)		10%
17	Subtotal 4 (Subtotal 3 + Mobilization)		
18	Construction Contingency (35% of Subtotal 4)		F41
19	Construction Subtotal:	\$ 93,132,384	[1]
20	Planning/Environmental Doc. (10% of [1])	\$ 9,313,238	
21	Design Engineering & Management (15% of [1])	\$ 13,969,858	
22	Construction Engineering & Management (10% of [1])	\$ 9,313,238	
23	Subtotal 5:		
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$ 11,408,717	
25	Planning/Engineering Subtotal:	\$ 44,005,051	
26	Land, Easements and Right of Way Subtotal	\$ 31,030,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$ 10,860,500	
28	Planning/Engineering/ROW Subtotal:	\$ 85,895,551	[2]
29	Total ( [1] + [2] ):	\$ 179,027,935	
30	or Estimated as:	\$ 179,000,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: E3A I680-I880 - Calaveras Including median connection from overhead HOV.

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 799,665	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 775,620	1%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 24,044	0%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: E3C I680-I880 -Calaveras\_Elevated HOV Freeway 2 lanes cost estimate.

Date: November 2003

<u>ltem</u>	<u>Description</u>		<u>Cost</u>	<u>%</u>
1	Earthwork	\$	710,235	
2	Pavement	\$	4,777,500	
3	Landscaping	\$	-	
4	Structures:			
	a. Overhead HOV Structure	\$	8,820,000	
	b. Overhead HOV Structure	\$	15,970,500	
	c. Widenning 3 Existing bridges	\$	15,644,475	
	d. Barriers and Guardrail	\$	315,000	
	e. Retaining Walls	\$	3,096,000	
	f			
5	Soundwalls	\$	-	
6	Miscellaneous:	_		
	a. Ramp Metering System	\$	500,000	
	b. ITS	\$	150,000	
	c. Traffic Signals	\$	500,000	
_	d	•	50 400 740	
7	Subtotal 1:		50,483,710	
8	Advance Work (Based on DETAIL A - see page 2)	\$	276,398	00/
9	Drainage (0% to 20% of Subtotal 1)*	\$	249,995	0%
10	Signing (0% to 5% of Subtotal 1)*	\$ 6	687,336	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$	100,008	0% 2%
12 13	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)* Environmental Mitigation (0% to 10% of Subtotal 1)*	\$	1,000,082 300,025	1%
14	Subtotal 2:	•	<b>2,613,845</b>	1 70
15	Subtotal 3 (Subtotals 1 + 2):	<b>\$</b>	53,097,555	100/
16	Mobilization (as % of Subtotal 3; 10% is default)	_	5,309,755	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$	58,407,310	
18	Construction Contingency (35% of Subtotal 4)	\$	20,442,559	F43
19	Construction Subtotal:	\$	78,849,869	[1]
20	Planning/Environmental Doc. (10% of [1])	\$	7,884,987	
21	Design Engineering & Management (15% of [1])	\$	11,827,480	
22	Construction Engineering & Management (10% of [1])	\$	7,884,987	
23	Subtotal 5:	\$	27,597,454	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$	9,659,109	ı
25	Planning/Engineering Subtotal:	\$	37,256,563	
26	Land, Easements and Right of Way Subtotal	\$	13,619,000	
27	Land, Easements and ROW Contingency (35% of Subtotal 4)	\$	4,766,650	
28	Planning/Engineering/ROW Subtotal:	_	55,642,213	[2]
29	Total ( [1] + [2] ):	\$	134,492,081	
30	or Estimated as:	\$	134,500,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: E3C I680-I880 -Calaveras\_Elevated HOV Freeway 2 lanes cost estimate.

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 276,398	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 252,419	1%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 23,980	0%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: F3D I680-I880 - F3D Montague Elevated HOV direct connector.

Date: November 2003

<u>ltem</u>	<u>Description</u>		<u>Cost</u>	<u>%</u>
1	Earthwork	\$	1,360,000	
2	Pavement	\$	6,000,000	
3	Landscaping	\$	-	
4	Structures:		<u>"</u>	
	a. EB HOV bridge	\$	7,560,000	
	b. WB HOV bridge	\$	7,182,000	
	c. BART OC	\$	3,412,500	
	d. Barriers and Guardrails	\$	360,000	
	e. Retaining Walls	\$	1,500,000	
	f			
5	Soundwalls	\$	-	
6	Miscellaneous:	_		
	a. Ramp Metering System	\$	200,000	
	b. ITS	\$	200,000	
	c. Traffic Signals	\$	200,000	
_	d	•	07.074.500	
7	Subtotal 1:	•	27,974,500	
8	Advance Work (Based on DETAIL A - see page 2)	\$	1,500,133	40/
9	Drainage (0% to 20% of Subtotal 1)*	\$	300,027	1%
10	Signing (0% to 5% of Subtotal 1)*	\$	150,223	1%
11	Maintenance of Utilities (0% to 25% of Subtotal 1)* Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$	489,554	2% 1%
12 13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$	200,018 500,744	2%
14	Subtotal 2:	\$	3,140,697	2 /0
15	Subtotal 3 (Subtotals 1 + 2):	\$	31,115,197	
	•	\$	3,111,520	10%
16	Mobilization (as % of Subtotal 3; 10% is default)	<b>\$</b>		10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$	34,226,717	
18	Construction Contingency (35% of Subtotal 4)		11,979,351	F41
19	Construction Subtotal:	Þ	46,206,068	[1]
20	Planning/Environmental Doc. (10% of [1])	\$	4,620,607	
21	Design Engineering & Management (15% of [1])	\$	6,930,910	
22	Construction Engineering & Management (10% of [1])	\$	4,620,607	
23	Subtotal 5:	\$	16,172,124	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$	5,660,243	
25	Planning/Engineering Subtotal:	\$	21,832,367	
26 27 28	Land, Easements and Right of Way Subtotal Land, Easements and ROW Contingency (35% of Subtotal 4)  Planning/Engineering/ROW Subtotal:	\$ \$	16,500,000 5,775,000 44,107,367	[2]
29	Total ( [1] + [2] ):	\$	90,313,435	
30	or Estimated as:	\$	90,300,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Improvement: F3D I680-I880 - F3D Montague Elevated HOV direct connector.

Date: November 2003

<u>ltem</u>	<u>Description</u>	Cost	<u>%</u>
8	Advance Work	\$ 1,500,133	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$ -	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 1,000,088	4%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 500,044	2%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ -	0%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

Page No. \_\_1\_\_ of \_\_6\_\_\_

### PRELIMINARY CONSTRUCTION COST SUMMARY

### PROJECT DESCRIPTION: Limits Auto Mall Parkway between I-680 & I-880 (East of Grimmer Blvd.), City of Fremont, Alameda County **Proposed Improvement (Scope)** Widen Auto Mall Parkway to 6 lanes, 3 in each direction with dual left-turn lanes at all intersections. Alternate SUMMARY OF PROJECT COST ESTIMATE TOTAL ROADWAY ITEMS \$13,098,360 TOTAL STRUCTURE ITEMS \$2,051,000 SUBTOTAL CONSTRUCTION COSTS \$15,149,360 TOTAL RIGHT OF WAY ITEMS (Current Value) \$911,510 TOTAL PROJECT CAPITAL OUTLAY COSTS \$16,060,870 Reviewed by District Program Manager (Signature) Approved by Project Manager Date (Signature)

Section 1 Earthwork	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Roadway Excavation	29500	M3	\$25	\$737,500	
Imported Borrow	6800	M3	\$20	\$136,000	<u>-</u>
Clearing & Grubbing	1	LS	\$385,000	\$385,000	_
Develop Water Supply		LS	\$0	\$0	
Demolition		LS	\$0	\$0	_
					_
					_
			Subtotal Earth	work	\$1,258,500
Section 2 Pavement Structural Section*  PCC Pavement (Depth)  PCC Pavement (Depth)			_		<u>-</u>
Pavement (Asphalt Concrete Roadway)	20615	M2	\$150	\$3,092,250	
Asphalt Concrete					_
Lean Concrete Base					_
Cement-Treated Base					<u>-</u>
Aggregate Base			_		_
Treated Permeable Base					_
Aggregate Subbase					_
Pavement Reinforcing Fabric					_
Edge Drains			_		_
Remove Pavement	2640	M2	\$40	\$105,600	_
					_
	Subtotal Paveme	ent Structural	Section		\$3,197,850
Section 3 Drainage					
Large Drainage Facilities	1	LS	\$150,000	\$150,000	
Storm Drains		LS	\$0	\$0	_
Pumping Plants		LS	<u> </u>	· ·	_
Project Drainage					_
(X-Drains, overside, etc.)			\$0	\$0	
					_
					_
					_
					_
			Subtotal Drain	iage	\$150,000
*Reference sketch showing typical paver (if available) T.I., R-Value and date who NOTE: Extra lines are provided for item	en tests were perfo	ormed.	·	nclude Page No	2 of6

Section 4 Specialty Items	Quantity	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Retaining Walls		M	\$750	\$0	
Noise Barriers (H=4.3m)		M	\$1,800		_
Barriers and Guardrails	1360	M	\$180	\$244,800	_
Equipment/Animal Passes		LS			_
Highway Planting		LS			_
Replacement Planting		LS			_
Irrigation Modification		LS			_
Relocate Private Irrigation		LS			_
Facilities					
Erosion Control	1	LS	\$229,800	\$229,800	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control			\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$200,000	\$200,000	_
Resident Engineer Office Space					_
Curb & Gutter		M	\$0	\$0	_
Median Curb		M	\$0	\$0	_
Side Walk	13113	M2	\$100	\$1,311,300	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	_
Sound Wall					_
		Subtotal Spe	cialty Items		\$1,985,900
Section 5 Traffic Items					
Lighting	1	LS	\$100,000	\$100,000	
Traffic Delineation Items	1	LS	\$50,000	\$50,000	_
Traffic Signals	1	LS	\$400,000	\$400,000	=
Overhead Sign Structures			\$0	\$0	_
Roadside Signs		LS	\$0	\$0	_
Traffic Control Systems	1	LS	\$150,000	\$150,000	_
Transportation Management Plan	1	LS	\$150,000	\$150,000	_
Temporary K-Rail				· · · · · · · · · · · · · · · · · · ·	_
TemporaryDetour Road	_			-	_
Signal Modification		LS	\$0	\$0	_
					_
			6 1 1	· ·	#0. <b>7</b> 0.000

Subtotal Traffic Items

\$850,000

TOTAL SECTIONS 1 thru 5

\$7,442,250

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_\_

Section 6 Minor Items	<u>Item Cost</u>	Section Cost
	\$7,442,250 x 10% = \$744,225 (Subtotal Sections 1 thru 5)	
	TOTAL MINOR ITEMS	\$744,225
Section 7 Roadway Mobilization		
	\$8,186,475 x 10% = \$818,648 (Subtotal Sections 1 thru 6)	
	TOTAL ROADWAY MOBILIZATION	\$818,648
Section 8 Roadway Additions		
Supplemental `	Work	
••	\$8,186,475 x 10% = \$818,648 (Subtotal Sections 1 thru 6)	
Contingencies		
Ç	\$8,186,475 x 40% = \$3,274,590 (Subtotal Sections 1 thru 6) (**%)	
	TOTAL ROADWAY ADDITIONS	\$4,093,238
	TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)	\$13,098,360
Estimate Prepared By Scott Wagner (Print I	Phone # 408-392-7200	Date 7/18/2003
Estimate Checked By  (Print 1)	Phone #	Date
** Use 25% at the PSR Stage or a higher ** Use appropriate percentage per Chapte		Page No. 4 of 6

II.	STRU	CTURES	ITEMS
-----	------	--------	-------

	Structure (1)	Structure (2)	Structure (3)		
Bridge Name Structure Type	Railway Overpass Conc Single Span Widening	680 Overpass Conc Single Span Widening			
Width (out to out) - (m)	10	6			
Span Lengths - (m)	62	92			
Total Area - (m2)	620	552			
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization					
and 20% contingency)	\$1,750	\$1,750			
Total Cost for Structure	\$1,085,000	\$966,000			
			TRUCTURES ITE Cost for Structure	-	\$2,051,000
Railroad Related Costs:	LS			\$0	
		SUBTOTAL R	AILROAD ITEMS	S .	\$0
	(Sur		CTURES ITEMS ems plus Railroad I	_	\$2,051,000
COMMENTS:					
Estimate Prepared By	Scott Wagner (Print Name)	Phone # _	408-392-7200	Date	7/18/2003
NOTE: If appropriate, atta	ach additional pages and backu	p.		Page No5	of6

### 680/880 Cross Connector Study Preliminary Construction Cost Estimate

III.	RIGHT OF WAY ITEMS	CURRENT VALUE ESC	CALATED VAI (@ 5% Per Ye	
A.	Acquisition, including excess lands,		`	,
	damages to remainder(s) and Goodwill	\$411,510		
B.	Utility Relocation (State share)	\$500,000		
C.	Relocation Assistance	\$0		
D.	Clearance/Demolition	\$0		
E.	Title and Escrow Fees	<u>\$0</u>		
		TOTAL RIGHT OF WAY ITEM (Current Value)		\$911,510
		Anticipated Date of Right of Way Certification Date to which Values are Escalated)		
	F. Construction Contract Work			
	Brief Description of Work:			
			<u>-</u> _	
			- -	
	Disks of Was Danish Cost Fee		-	
	Right of Way Branch Cost Esti	mate for work "		
	* This dollar amount is to be in Structures Items of Work, as Right of Way Items.	cluded in the Roadway and/or appropriate. <b><u>Do not</u></b> include in		
CC	MMENTS:			
Est	imate Prepared By Scott Wagner (Print Na	Phone # 408-392-7200 me)	Date	7/18/2003
NC	TE: If appropriate, attach additional pag	es and backup.	Page No6	of 6
			- ugo 1100	010

### PRELIMINARY CONSTRUCTION COST SUMMARY

PROJEC	CT DESCRIPTION:			
Limits	Fremont Blvd and Grimn	ner Blvd between I-680 & I-880, City	of Fremont, Alan	neda County
Proposed I	mprovement (Scope)	Widen Fremont Blvd & Grimmer B	Blvd to 6 lanes, 2 n	nixed flow lanes
and 1 HOV	lane in each direction. De	molish portion of I680 bridge to build	2 HOV lanes in I	680 median.
Alternate	B1B			
		SUMMARY OF PROJECT COS	ST ESTIMATE	
	TOTAL ROADWAY IT	EMS	_	\$28,110,368
	TOTAL STRUCTURE I	TEMS	_	\$1,000,860
	SUBTOTAL CONSTRU	CTION COSTS	_	\$29,111,228
	TOTAL RIGHT OF WA	Y ITEMS (Current Value)	_	\$15,500,000
	TOTAL PROJECT CAP	ITAL OUTLAY COSTS	_	\$44,611,228
Reviewed b	y District Program Manage	er(Signa	tura)	
		(Signa	.turc)	
Approved b	y Project Manager	(Signature)	Date _	
		(2.8		
				Page No1 of6

I. ROADWAY ITEMS					
Section 1 Earthwork	Quantity	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway Excavation	49600	M3	\$25	\$1,240,000	
Imported Borrow	0	M3	\$20	\$0	_
Clearing & Grubbing	1	LS	\$1,200,000	\$1,200,000	
Develop Water Supply	1	LS	\$0	\$0	
Demolition	1	LS	\$0	\$0	
					_
			Subtotal Earth	work	\$2,440,000
Continue 2 Dovinsont Standard Continue *					
Section 2 Pavement Structural Section* PCC Pavement (Depth)					
PCC Pavement (Depth)			_		-
Pavement (Asphalt Concrete Roadway)	45500	M2	\$150	\$6,825,000	_
Asphalt Concrete	43300	IVIZ	\$130	\$0,823,000	_
Lean Concrete Base			_		=
Cement-Treated Base			_		=
Aggregate Base			_		=
Treated Permeable Base			_		=
Aggregate Subbase			_		=
Pavement Reinforcing Fabric					_
Edge Drains			_		_
Remove Pavement	4200	M2	\$40	\$168,000	_
Remove I avenient	4200	1712	Ψ+0	φ100,000	_
			_		-
	Subtotal Paveme	ent Structural	Section		\$6,993,000
Section 3 Drainage	1	1.0	¢200.000	¢200,000	
Large Drainage Facilities	1	LS	\$200,000	\$200,000	_
Storm Drains	1	LS	\$0	\$0	_
Pumping Plants			_		_
Project Drainage (X-Drains, overside, etc.)	1	LS	\$0	\$0	
(A-Dianis, overside, etc.)	1	LS	\$0	<u>\$0</u>	-
			_		-
			_		-
			_		-
-			Subtotal Drain	1000	\$200,000
			Subtotal Diali	iage	\$200,000
*Reference sketch showing typical paver	mant structural sac	etion alamants	of the ready av	naluda	
(if available) T.I., R-Value and date wh			of the foatiway. If	neruue	
	-		• .		
NOTE: Extra lines are provided for item	is not listed, use ac	aditional lines	as appropriate.	D 37	2 6 6
				Page No2	2 of6_

Section 4 Specialty Items	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Retaining Walls	3300	M2	\$750	\$2,475,000	_
Noise Barriers (H=4.3m)	0	M	\$1,800	\$0	_
Barriers and Guardrails	2300	M	\$180	\$414,000	_
Equipment/Animal Passes					_
Highway Planting					_
Replacement Planting					_
Irrigation Modification					_
Relocate Private Irrigation					
Facilities					_
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$100,000	\$100,000	_
Resident Engineer Office Space			_		_
Curb & Gutter		M	\$0	\$0	_
Median Curb		M	\$0	\$0	_
Side Walk	19000	M2	\$100	\$1,900,000	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	
Bridge Removal	246	M2	\$1,300	\$319,800	
		Subtotal Spec	ialty Items		\$5,308,800
Section 5 Traffic Items					
Lighting	1	LS	\$100,000	\$100,000	
Traffic Delineation Items	1	LS	\$130,000	\$130,000	_
Traffic Signals	1	LS	\$600,000	\$600,000	_
Overhead Sign Structures			\$0	\$0	-
Roadside Signs	1	LS	\$0	\$0	-
Traffic Control Systems	1	LS	\$100,000	\$100,000	_
Transportation Management Plan	1	LS	\$100,000	\$100,000	_
Temporary K-Rail					_
TemporaryDetour Road					_
Signal Modification	1	LS	\$0	\$0	<b>-</b> -
					<del>-</del>

Subtotal Traffic Items

\$1,030,000

TOTAL SECTIONS 1 thru 5

\$15,971,800

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_\_

### 680/880 Cross Connector Study Preliminary Construction Cost Estimate

Section 6 Minor Items				Item Cost		Section Cost
		\$15,971,800 x (Subtotal Sections 1	10% thru 5)	= \$1,597,180		
		TOTAL MINOR IT	EMS			\$1,597,180
Section 7 Roadway Mol	<u>bilization</u>					
		\$17,568,980 x (Subtotal Sections 1	10% thru 6)	= \$1,756,898		
		TOTAL ROADWA	Y MOBIL	IZATION		\$1,756,898
Section 8 Roadway Add	<u>itions</u>					
	Supplemental	Work				
	Supplemental	\$17,568,980 x (Subtotal Sections 1	10% thru 6)	= \$1,756,898		
	Contingencies					
		\$17,568,980 x (Subtotal Sections 1		= \$7,027,592 (**%)		
		TOTAL ROADWA	Y ADDIT	IONS		\$8,784,490
		TOTAL ROADWA (Subtotal Sections				\$28,110,368
Estimate Prepared By	Charmaine Za		Phone #	‡ <u>(408)</u> 392-7200	_ Date	7/18/2003
	(2 1111)	· · · · · · · · · · · · · · · · · · ·			_	
Estimate Checked By	(Print 1	Name)	Phone #	<sup>‡</sup>	- Date	;
** Use 25% at the PSR 5 ** Use appropriate perce			ed.		Page No	4 of6

II	STRUCT	TIRES	ITEMS
11.	DINCCI	UKLD	

	Structure (1)	Structure (2)	Structure (3)		
Bridge Name	SB I680 Bridge	NB I680 Bridge			
Structure Type	Conc Single Span Widening	Conc Single Span Widening			
Width (out to out) - (m)	5.6	8			
Span Lengths - (m)	41.7	42.3			
Total Area - (m2)	233.52	338.4			
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization					
and 20% contingency)	\$1,750	\$1,750			
Total Cost for Structure	\$408,660	\$592,200			
			TRUCTURES IT		\$1,000,860
Railroad Related Costs:	LS			\$0	_
					_
					_
		SUBTOTAL R	AILROAD ITEM	IS	\$0
	(Sur		CTURES ITEMS ems plus Railroad		\$1,000,860
COMMENTS:					
Estimate Prepared By	Charmaine Zamora (Print Name)	Phone # <u>(</u>	(408) 392-7200	_ Dat	e 7/18/2003
NOTE: If appropriate, atta	ch additional pages and backu	p.		Page No	5 of6

### 680/880 Cross Connector Study Preliminary Construction Cost Estimate

III. RIGHT OF WAY ITEMS	CURRENT VALUE	ESCALATED VALUE (@ 5% Per Year)
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$15,500,000	——————————————————————————————————————
B. Utility Relocation (State share)	\$0	
C. Relocation Assistance	\$0	
D. Clearance/Demolition	\$0	
E. Title and Escrow Fees	\$0	
	TOTAL RIGHT OF WA	
<del>-</del>	ated Date of Right of Way Certific which Values are Escalated)	eation
F. Construction Contract Work		
Brief Description of Work:		
Right of Way Branch Cost Estimate for	or Work *	
* This dollar amount is to be included Structures Items of Work, as appropriately Right of Way Items.	•	
COMMENTS:		
Estimate Prepared By Charmaine Zamora (Print Name)	Phone # (408) 392-	7200 Date 7/18/2003
NOTE: If appropriate, attach additional pages and	backup.	Page No6 of6

### PRELIMINARY CONSTRUCTION COST SUMMARY

PROJEC	CT DESCRIPTION	:				
Limits	Fremont Blvd and Grimmer Blvd between I-680 & I-880, City of Fremont, Alameda County					
Proposed I	mprovement (Scope)	Construct 2-lane elevated HOV fre	eway connector bety	ween I880 and		
I680 paralle	el to Fremont Blvd and Gr	mmer Blvd.				
Alternate	B2C					
		SUMMARY OF PROJECT CO	ST ESTIMATE			
	TOTAL ROADWAY IT	TEMS		\$27,810,464		
	TOTAL STRUCTURE	TEMS		\$63,909,000		
	SUBTOTAL CONSTRU	JCTION COSTS	_	\$91,719,464		
	TOTAL RIGHT OF WA	AY ITEMS (Current Value)	_	\$65,250,000		
	TOTAL PROJECT CAI	PITAL OUTLAY COSTS	_	\$156,969,464		
Reviewed b	y District Program Manag	er(Signa		<u> </u>		
Approved b	y Project Manager	(Signature)	Date			
				Page No1 of6_		

I. ROADWAY ITEMS					
Section 1 Earthwork	Quantity	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway Excavation	43000	M3	\$25	\$1,075,000	
Imported Borrow	32000	M3	\$20	\$640,000	_
Clearing & Grubbing	1	LS	\$1,100,000	\$1,100,000	_
Develop Water Supply	1	LS	\$0	\$0	_
Demolition (Buildings)	1	LS	\$700,000	\$700,000	_
					_
					- -
			Subtotal Earth	Subtotal Earthwork	
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					_
PCC Pavement (Depth)					_
Pavement (Asphalt Concrete Roadway)	43000	M2	\$150	\$6,450,000	_
Asphalt Concrete					_
Lean Concrete Base					_
Cement-Treated Base					_
Aggregate Base					_
Treated Permeable Base					_
Aggregate Subbase					_
Pavement Reinforcing Fabric					_
Edge Drains					_
Remove Pavement	2160	M2	\$40	\$86,400	_
			_		_ _
	Subtotal Paveme	- \$6.526.400			
	Subtotal Pavellio	\$6,536,400			
Section 3 Drainage Large Drainage Facilities	1	LS	\$200,000	\$200,000	
Storm Drains	1	LS	\$200,000	\$0,000	-
Pumping Plants		LS	<u>\$0</u>	<del>\$</del> 0	-
Project Drainage					-
(X-Drains, overside, etc.)	1	LS	\$0	\$0	
(A-Diams, overside, etc.)			Ψ0	Ψ0	=
			_		-
			_		-
					-
	Subtotal Drainage				\$200,000
	Suototai Dramage				\$200,000
*Reference sketch showing typical paver	ment structural sec	tion elements	of the roadway I	nclude	
(if available) T.I., R-Value and date wh			of the foatway. I	nerude	
	-				
NOTE: Extra lines are provided for item	is not fisted, use ac	iditional lines	as appropriate.	Dos- N-	2 of (
				Page No	2 of6

Section 4 Specialty Items	Quantity	<u>Unit</u>	Unit Price	Item Cost	Section Cost
Retaining Walls	3800	M2	\$750	\$2,850,000	-
Noise Barriers (H=4.3m)	800	M	\$1,800	\$1,440,000	_
Barriers and Guardrails	2000	M	\$180	\$360,000	_
Equipment/Animal Passes		·			-
Highway Planting		·			-
Replacement Planting					_
Irrigation Modification					_
Relocate Private Irrigation					-
Facilities					_
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$0	\$0	-
Water Pollution Control		LS	\$0	\$0	-
Hazardous Waste Work		LS	\$0	\$0	-
Environmental Mitigation	1	LS	\$200,000	\$200,000	-
Resident Engineer Office Space					-
Curb & Gutter	0	M	\$0	\$0	-
Median Curb	0	M	\$0	\$0	-
Side Walk	0	M2	\$100	\$0	-
Landscaping/Irrigation		LS	\$0	\$0	-
SWPPP		LS	\$0	\$0	-
Sound Wall					-
		\$4,950,000			
Section 5 Traffic Items					
Lighting	1	LS	\$150,000	\$150,000	
Traffic Delineation Items	1	LS	\$150,000	\$150,000	-
Traffic Signals	1	LS	\$0	\$0	-
Overhead Sign Structures					-
Roadside Signs	1	LS	\$0	\$0	-
Traffic Control Systems	1	LS	\$150,000	\$150,000	-
Transportation Management Plan	1	LS	\$150,000	\$150,000	-
Temporary K-Rail					-
TemporaryDetour Road					-
Signal Modification	1	LS	\$0	\$0	-
					-

TOTAL SECTIONS 1 thru 5

**Subtotal Traffic Items** 

\$15,801,400

\$600,000

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_

Section 6 Minor Items	<u>Item Cost</u>	Section Cost
	\$15,801,400 x 10% = \$1,580,140 (Subtotal Sections 1 thru 5)	
	TOTAL MINOR ITEMS	\$1,580,140
Section 7 Roadway Mobilization		
	\$17,381,540 x 10% = \$1,738,154 (Subtotal Sections 1 thru 6)	
	TOTAL ROADWAY MOBILIZATION	\$1,738,154
Section 8 Roadway Additions		
Supplemental	Work	
	$\frac{\$17,381,540 \text{ x}}{\text{(Subtotal Sections 1 thru 6)}} = \frac{\$1,738,154}{\text{ (Subtotal Sections 1 thru 6)}}$	
Contingencies		
	$\frac{\$17,381,540 \text{ x}}{\text{(Subtotal Sections 1 thru 6)}} = \frac{\$6,952,616}{(**\%)}$	
	TOTAL ROADWAY ADDITIONS	\$8,690,770
	TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)	\$27,810,464
Estimate Prepared By Charmaine Za (Print	Phone # (408) 392-7200 Name)	Date 7/18/2003
Estimate Checked By (Print	Phone # Name)	Date
(Fint	. tame,	
** Use 25% at the PSR Stage or a higher	· ·	
** Use appropriate percentage per Chapt	er 20.	Page No4 of6

II. S	TRU	CTU	JRES	ITEM	15
-------	-----	-----	------	------	----

	Structure (1)	Structure (2)	Structure (3)			
Bridge Name	2-Lane HOV Bridge					
Structure Type	CIP Concrete Bridge					
Width (out to out) - (m)	16.2					
Span Lengths - (m)	2630					
Total Area - (m2)	42606					
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization						
and 20% contingency)	\$1,500					
Total Cost for Structure	\$63,909,000					
			TRUCTURES ITI Cost for Structure		<u>\$6</u>	3,909,000
Railroad Related Costs:	LS			\$0		
		SUBTOTAL R	AILROAD ITEM	S	\$0	l
	(Sun		CTURES ITEMS ems plus Railroad	Items)	<u>\$6</u>	3,909,000
COMMENTS:						
Estimate Prepared By	Charmaine Zamora (Print Name)	Phone # <u>(</u>	(408) 392-7200		Date	7/18/2003
NOTE: If appropriate, atta	ach additional pages and backup	).		Page No	o. <u></u> 5	_ of6

III. RIGH	T OF WAY IT	EMS	CURRENT VALUE		ALATED VALU (@ 5% Per Year	
A. Acquis	sition, including	g excess lands.			(00701011011	,
_		r(s) and Goodwill	\$65,000,000			
B. Utility	Relocation (St	ate share)	\$250,000	-		
C. Reloca	tion Assistance	2	\$0			
D. Cleara	nce/Demolition	1	\$0			
E. Title a	nd Escrow Fee	8	\$0			
			TOTAL RIGHT	OF WAY ITEM (Current Value)	S <u>\$6</u>	55,250,000
		-	ated Date of Right of Way which Values are Escalate			
F. Con	nstruction Cont	ract Work				
	Brief Descri	ption of Work:				
	Right of Wa	y Branch Cost Estimate for	or Work *			
		r amount is to be included Items of Work, as approp Vay Items.	•			
COMMEN	NTS:					
Estimate F	Prepared By	Charmaine Zamora (Print Name)	Phone # <u>(40</u>	08) 392-7200	Date	7/18/2003
NOTE: If	appropriate, at	tach additional pages and	backup.		Page No6	_ of6

# PRELIMINARY CONSTRUCTION COST SUMMARY

PROJEC	CT DESCRIPTION:					
Limits	Mission Boulevard between	en I-880 & I-680, City	of Fremont, Al	ameda County		
Proposed I	(Improvement (Scope)	Mission Blvd/Warm	Springs Blvd T	unnel.		
			•			
Alternate	C1A					
		SUMMARY OI	F PROJECT C	OST ESTIMATE		
	TOTAL ROADWAY ITE	MS			\$52,5	540,787
	TOTAL STRUCTURE IT	EMS			\$258,	000,000
	SUBTOTAL CONSTRUC	CTION COSTS			\$310,	540,787
	TOTAL RIGHT OF WAY	' ITEMS (Current Val	ue)		\$1,7	00,000
	TOTAL PROJECT CAPIT	ΓAL OUTLAY COST	S		\$312,	240,787
Reviewed b	oy District Program Manager					
			(Sig	gnature)		
Approved b	oy Project Manager			Date		
		(Sign	ature)			
					D N.	1 -f (
					rage No	_1 of6
I. ROADW	VAY ITEMS					
Section 1 E		<b>Quantity</b>	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway E	Excavation	213744	M3	\$25	\$5,343,600	-

Imported Borrow	0	M3	\$20	<del>-</del> \$0	
Clearing & Grubbing	1	LS	\$679,000	\$679,000	_
Develop Water Supply		LS	\$0	\$0	_
Demolition		LS	\$0	\$0	_
					<del>-</del>
			_		<b>-</b>
			Subtotal Earth	iwork	\$6,022,600
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					
PCC Pavement (Depth)				<u> </u>	_
Pavement (Asphalt Concrete Roadway)	49221	M2	\$150	\$7,383,150	_
Asphalt Concrete			_		_
Lean Concrete Base					_
Cement-Treated Base					_
Aggregate Base					_
Treated Permeable Base					_
Aggregate Subbase					<del>-</del>
Pavement Reinforcing Fabric					=
Edge Drains					_
Remove Pavement	30000	M2	\$40	\$1,200,000	_
			_		_
					_
	Subtotal Pavement	Structural Sect	ion		\$8,583,150
Section 3 Drainage					
Large Drainage Facilities	1	LS	\$5,200,000	\$5,200,000	_
Storm Drains		LS	_	\$0	_
Pumping Plants			_		=
Project Drainage					
(X-Drains, overside, etc.)		LS	\$0	\$0	_
			_	<u>.</u> .	_
			_	<u>.</u> .	_
			_	<u> </u>	_
			G 1 + + 1 D ·		- #5 200 000
			Subtotal Drain	nage	\$5,200,000
*Reference sketch showing typical paven	ant structural saction	n alamants of th	na raaduyay Inalu	uda	
(if available) T.I., R-Value and date whe			ie ioauway. iliciu	iue	
			• .		
NOTE: Extra lines are provided for items	s not listed, use addit	nonal lines as a	ppropriate.	D M	
				Page No	2 of6
Section 4 Specialty Items	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Retaining Walls	6943	<u>omt</u> M2	\$750	\$5,207,250	Section Cost
Noise Barriers (H=4.3m)	<u> </u>	M	\$1,800	\$0	_
Barriers and Guardrails		M	\$180	<del>\$0</del>	_
Equipment/Animal Passes		171	Ψ100	ΨΟ	_
24-17-110-110 / IIIIII 1 1 110000					_

Highway Planting			· <del></del>		
Replacement Planting			<u> </u>		_
Irrigation Modification	1	LS	\$100,000	\$100,000	_
Relocate Private Irrigation		LS	φ100,000	\$100,000	_
Facilities					
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$100,000	\$100,000	_
Resident Engineer Office Space	1	LS	\$150,000		_
Curb & Gutter	2844	M	\$80	\$150,000 \$227,520	_
Median Curb	2044			\$0	_
	14492	<u>M</u>	\$0		_
Side Walk	14482	<u>M2</u>	\$100	\$1,448,200	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	_
Sound Wall					
		Subtotal Speci	alty Items		\$7,332,970
Section 5 Traffic Items			** ***		
Lighting	1	LS	\$1,000,000	\$1,000,000	_
Traffic Delineation Items	1	LS	\$114,000	\$114,000	_
Traffic Signals	1	LS	\$400,000	\$400,000	<u> </u>
Overhead Sign Structures	1	LS	\$500,000	\$500,000	_
Roadside Signs	1	LS	\$50,000	\$50,000	_
Traffic Control Systems	1	LS	\$500,000	\$500,000	_
Transportation Management Plan	1	LS	\$150,000	\$150,000	_
Temporary K-Rail					_
TemporaryDetour Road					_
Signal Modification		LS	\$0	\$0	_
			Subtotal Traffi	c Items	\$2,714,000
		TOTAL SECT	ΓIONS 1 thru 5		\$29,852,720
NOTE: Extra lines are provided for item	is not listed, use addi	tional lines as ap	propriate.		
				Page No	3 of6
Section 6 Minor Items			Item Cost		Section Cost
	\$29,852,720	x 10%	= \$2,985,272		
	(Subtotal Sections	1 thru 5)			
	TOTAL MINOR I	TEMS			\$2,985,272

|--|

#### TOTAL ROADWAY MOBILIZATION

\$3,283,799

#### Section 8 Roadway Additions

Supplemental Work

$$\frac{$32,837,992}{\text{(Subtotal Sections 1 thru 6)}}$$
 x 10% =  $\frac{$3,283,799}{}$ 

Contingencies

$$$32,837,992$$
 x  $40\%$  =  $$13,135,197$  (Subtotal Sections 1 thru 6)  $(**\%)$ 

TOTAL ROADWAY ADDITIONS

\$16,418,996

TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)

\$52,540,787

Estimate Prepared By	Ricardo Morales	Phone # 408-392-7200	Date 7/18/2003
	(Print Name)		
Estimate Checked By		Phone #	Date
	(Print Name)	<u> </u>	<u> </u>

Page No. \_\_4\_\_\_ of \_\_6\_\_\_

#### II. STRUCTURES ITEMS

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	Tunnel HOV Structure	Overhead HOV Structure	Widening Three existing bridges
Structure Type	CIP Concrete tunnel	CIP Concrete Bridge	CIP Concrete Bridge
Width (out to out) - (m)	27.5		
Lengths - (m)	1032		

<sup>\*\*</sup> Use 25% at the PSR Stage or a higher or lower rate if justified.

<sup>\*\*</sup> Use appropriate percentage per Chapter 20.

Total Area - (m2)		28380			
Footing Type (pile/sprea Cost Per m2 (incl. 10% mobilization	1				
and 20% contingency)		\$250,000			
Total Cost for Structure	\$	5258,000,000			
			SUBTOTAL STRUCT (Sum of Total Cost fo		\$258,000,000
Railroad Related Costs:	_	LS	-	<u>\$0</u>	
	_		- - SUBTOTAL RAILRO	AD ITEMS	\$0
			SOBTOTAL RAILRO	71D TIEWIS	ΨΟ
		(Su	TOTAL STRUCTURE		\$258,000,000
COMMENTS:					
Estimate Prepared By	Ricardo Morales (Print Nam	ne)	Phone # 408-3	92-7200 I	Date 7/18/2003
NOTE: If appropriate, a	ttach additional page:	s and backup.		Page No.	_5 of6
III. RIGHT OF WAY IT	TEMS		CURRENT VALUE	ESCALATED (@ 5% Pe	
A. Acquisition, includin damages to remainde			\$0		
B. Utility Relocation (St	rate share)		\$500,000		
C. Relocation Assistance	e		\$0		
D. Clearance/Demolition	n		\$1,200,000		
E. Title and Escrow Fee	s		\$0		

		TOTAL RIGHT OF WAY ITEM (Current Value)		1,700,000
	-	ted Date of Right of Way Certification ch Values are Escalated)		
F. Construction Con	tract Work			
Brief Descr	ription of Work:			
Right of W	ay Branch Cost Estimate for W	ork *		
Structure	ar amount is to be included in the strems of Work, as appropriate Way Items.	•		
COMMENTS:				
Estimate Prepared By	Ricardo Morales (Print Name)	Phone # 408-392-7200	Date	7/18/2003
NOTE: If appropriate, a	ttach additional pages and back	up.	Page No6	of6

# PRELIMINARY CONSTRUCTION COST SUMMARY

PROJEC	CT DESCRIPTION:					
Limits	Mission Boulevard between	en I-880 & I-680, City	of Fremont, Al	ameda County		
Proposed I	(mprovement (Scope)	Mission Blvd/Warm	Springs Blvd T	unnel.		
Alternate	<u>C1D</u>					
		SUMMARY OF	PROJECT C	OST ESTIMATE	2	
	TOTAL ROADWAY ITE	MS			\$58,7	44,611
	TOTAL STRUCTURE ITEMS				\$524,500,000	
	SUBTOTAL CONSTRUC	\$583,244,611				
	TOTAL RIGHT OF WAY	\$1,70	00,000			
	TOTAL PROJECT CAPI	\$584,9	944,611			
Reviewed b	y District Program Manager	•				
			(Sig	gnature)		
Approved b	by Project Manager			Date		
		(Sign	ature)			
					Page No	_1 of6
I. ROADW Section 1 E	VAY ITEMS arthwork	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Roadway E		439596	M3	\$25	\$10,989,900	

Imported Borrow	0	M3	\$20	<b>\$</b> 0	
Clearing & Grubbing	1	LS	\$1,200,000	\$1,200,000	_
Develop Water Supply		LS	\$0	\$0	<del>_</del>
Demolition		LS	\$0	\$0	<del>_</del>
			_	_	_
				-	<del>-</del>
			Subtotal Earth	nwork	\$12,189,900
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					
PCC Pavement (Depth)			_		_
Pavement (Asphalt Concrete Roadway)	40824	M2	\$150	\$6,123,600	_
Asphalt Concrete				, ,	_
Lean Concrete Base			_		_
Cement-Treated Base			_		_
Aggregate Base			_		_
Treated Permeable Base			_		_
Aggregate Subbase					<del>_</del>
Pavement Reinforcing Fabric					<del>_</del>
Edge Drains			_		_
Remove Pavement	30000	M2	\$40	\$1,200,000	_
					_
			_		_
	Subtotal Pavement	Structural Sect	tion	<u></u>	\$7,323,600
Section 3 Drainage			<b></b>		
Large Drainage Facilities	1	LS	\$7,046,500	\$7,046,500	_
Storm Drains		LS	_	\$0	_
Pumping Plants			_		_
Project Drainage		T C	¢o	\$0	
(X-Drains, overside, etc.)		LS	\$0	\$0	_
			_		_
					-
			_		_
			Subtotal Drain	nage	\$7,046,500
*Reference sketch showing typical paver			he roadway. Inclu	ıde	
(if available) T.I., R-Value and date who	en tests were perform	ed.			
NOTE: Extra lines are provided for item	s not listed, use addit	ional lines as a	ppropriate.		
				Page No	2 of6
		** *	<b>**</b> ** ** *	<b>.</b> ~	g : ~
Section 4 Specialty Items	Quantity	<u>Unit</u>	Unit Price	Item Cost	Section Cost
Retaining Walls	2880	<u>M2</u>	\$750	\$2,160,000	_
Noise Barriers (H=4.3m)		M	\$1,800	\$0	_
Barriers and Guardrails		<u>M</u>	\$180	\$0	_
Equipment/Animal Passes				_	_

Highway Planting					
Replacement Planting					_
Irrigation Modification	1	LS	\$100,000	\$100,000	_
Relocate Private Irrigation			\$100,000	\$100,000	_
Facilities					
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$00,000	\$100,000	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0 \$0	\$0	_
		LS			_
Environmental Mitigation	1		\$100,000	\$100,000	_
Resident Engineer Office Space		LS M	\$150,000	\$150,000	_
Curb & Gutter	2844		\$80	\$227,520	_
Median Curb	14402	M	\$0	\$0	_
Side Walk	14482	<u>M2</u>	\$100	\$1,448,200	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	_
Sound Wall					_
		Subtotal Speci	ialty Items		\$4,285,720
Section 5 Traffic Items					
Lighting	1	LS	\$1,000,000	\$1,000,000	_
Traffic Delineation Items	1	LS	\$131,900	\$131,900	_
Traffic Signals	1	LS	\$200,000	\$200,000	<u>_</u>
Overhead Sign Structures	1	LS	\$500,000	\$500,000	_
Roadside Signs	1	LS	\$50,000	\$50,000	<u>_</u>
Traffic Control Systems	1	LS	\$500,000	\$500,000	<u></u>
Transportation Management Plan	1	LS	\$150,000	\$150,000	
Temporary K-Rail					
TemporaryDetour Road					_
Signal Modification		LS	\$0	\$0	_
					_
			Subtotal Traffi	c Items	\$2,531,900
		TOTAL SECT	ΓΙΟΝS 1 thru 5		\$33,377,620
NOTE: Extra lines are provided for item	ns not listed, use addi	tional lines as ar	propriate.		
1	,	1	1 1	Page No.	3 of6
				ε =	
Section 6 Minor Items			Item Cost		Section Cost
Section 6 Transfer Items			<u>rtem cost</u>		<u>section cost</u>
	\$33,377,620	x 10%	= \$3,337,762		
	(Subtotal Sections		ψ3,337,702		
	(Duototal Dections	1 diru <i>5)</i>			
	TOTAL MINOR I	TFMS			\$3,337,762
	TOTAL WIINOK I	LLIVIO			ψυ,υυ1,102

Section 7 Roadway Mobi
------------------------

$$\frac{\$36,715,382}{\text{(Subtotal Sections 1 thru 6)}}$$
 x 10% =  $\frac{\$3,671,538}{\text{(Subtotal Sections 1 thru 6)}}$ 

#### TOTAL ROADWAY MOBILIZATION

\$3,671,538

#### Section 8 Roadway Additions

Supplemental Work

Contingencies

$$$36,715,382$$
 x 40% =  $$14,686,153$  (Subtotal Sections 1 thru 6) (\*\*%)

TOTAL ROADWAY ADDITIONS

\$18,357,691

TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)

\$58,744,611

Estimate Prepared By	Ricardo Morales	Phone # 408-392-7200	Date 7/18/2003
	(Print Name)		
Estimate Checked By		Phone #	Date
	(Print Name)		

Page No. \_\_4\_\_\_ of \_\_6\_\_\_

#### II. STRUCTURES ITEMS

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	Tunnel HOV Structure	Overhead HOV Structure	Widening Three existing bridges
Structure Type	CIP Concrete tunnel	CIP Concrete Bridge	CIP Concrete Bridge
Width (out to out) - (m)	27.5		
Lengths - (m)	2098		

<sup>\*\*</sup> Use 25% at the PSR Stage or a higher or lower rate if justified.

<sup>\*\*</sup> Use appropriate percentage per Chapter 20.

Total Area - (m2)	_	57695			
Footing Type (pile/sprea Cost Per m2 (incl. 10% mobilization					
and 20% contingency)	_	\$250,000			
Total Cost for Structure	_	\$524,500,000			
			SUBTOTAL STRUCT (Sum of Total Cost for		\$524,500,000
Railroad Related Costs:	_	LS	-	\$0	
	_		<del>-</del> -		<u> </u>
			SUBTOTAL RAILRO	AD ITEMS	\$0
		(Si	TOTAL STRUCTURE um of Structures Items plus		\$524,500,000
COMMENTS:					
Estimate Prepared By	Ricardo Morales (Print Na		Phone # 408-39	92-7200 <u> </u>	Date 7/18/2003
NOTE: If appropriate, a	ttach additional pag	ges and backup.		Page No.	_5 of6
III. RIGHT OF WAY IT	ΓEMS		CURRENT VALUE	ESCALATED (@ 5% Pe	
A. Acquisition, includin damages to remainde			\$0	· 	
B. Utility Relocation (St	tate share)		\$500,000		<u></u>
C. Relocation Assistance	e		\$0		
D. Clearance/Demolition	n		\$1,200,000		
E. Title and Escrow Fee	s		\$0		

		TOTAL RIGHT OF WAY ITEM (Current Value)		1,700,000
	-	ted Date of Right of Way Certification ch Values are Escalated)		
F. Construction Con	tract Work			
Brief Descr	ription of Work:			
Right of W	ay Branch Cost Estimate for W	ork *		
Structure	ar amount is to be included in the strems of Work, as appropriate Way Items.	•		
COMMENTS:				
Estimate Prepared By	Ricardo Morales (Print Name)	Phone # 408-392-7200	Date	7/18/2003
NOTE: If appropriate, a	ttach additional pages and back	up.	Page No6	of6

Page No. \_\_1\_\_ of \_\_6\_\_\_

PROJECT DESCRIPTION:

### PRELIMINARY CONSTRUCTION COST SUMMARY

Proposed I	Improvement (Scope)	Mission Blvd/Warm Springs Blvd grade separa	ation and improve I-680
Alternate	C2B		
		SUMMARY OF PROJECT COST ESTIMA	ATE
	TOTAL ROADWAY I	TEMS	\$35,600,400
	TOTAL STRUCTURE	ITEMS	\$3,150,000
	SUBTOTAL CONSTR	UCTION COSTS	\$38,750,400
	TOTAL RIGHT OF W	AY ITEMS (Current Value)	\$9,500,000
	TOTAL PROJECT CA	PITAL OUTLAY COSTS	\$48,250,400
Reviewed b	y District Program Mana	ger(Signature)	
	by Project Manager	ח	ate

I. ROADWAY ITEMS					
Section 1 Earthwork	<b>Quantity</b>	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway Excavation	26500	M3	\$25	\$662,500	
Imported Borrow	0	M3	\$20	\$0	_
Clearing & Grubbing	1	LS	\$755,000	\$755,000	
Develop Water Supply	1	LS	\$0	\$0	
Demolition	1	LS	\$0	\$0	
Excavation(Depress)	28000	M3	\$25	\$700,000	
			_		_
			Subtotal Earth	work	\$2,117,500
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					_
PCC Pavement (Depth)	(2500		¢150	¢0.275.000	_
Pavement (Asphalt Concrete Roadway)	62500	<u>M2</u>	\$150	\$9,375,000	_
Asphalt Concrete Lean Concrete Base					_
Cement-Treated Base			_		_
			_		_
Aggregate Base Treated Permeable Base					_
					_
Aggregate Subbase			_		_
Pavement Reinforcing Fabric			_		_
Edge Drains	47600	M2	\$40	¢1 004 000	_
Remove Pavement	47600	IVIZ	\$40	\$1,904,000	-
					_
	Subtotal Paveme	ent Structural	Section	· -	\$11,279,000
Section 3 Drainage Large Drainage Facilities	1	LS	\$250,000	\$250,000	
Storm Drains	1	LS	\$36,000	\$36,000	_
Pumping Plants	1	LS	\$0	\$0,000	-
Project Drainage		LS	ΦΟ	ΨΟ	_
(X-Drains, overside, etc.)	1	LS	\$0	\$0	
(X-Dianis, overside, etc.)		LS	Ψ0	ΨΟ	=
			_		=
			_		_
			_		_
		<u>,</u>	Subtotal Drain		<b>\$286,000</b>
			Subtotal Diam	age	Ψ200,000
*Reference sketch showing typical paver	mant structural sac	tion alamants	of the ready av	naluda	
(if available) T.I., R-Value and date wh			of the foatiway. If	neruue	
	•		• .		
NOTE: Extra lines are provided for item	is not listed, use ac	iaitional lines	as appropriate.	D. M	2 6 6
				Page No	2 of6_

Section 4 Specialty Items	Quantity	<u>Unit</u>	Unit Price	Item Cost	Section Cost
Retaining Walls	3300	<u>M2</u>	\$750	\$2,475,000	
Noise Barriers (H=4.3m)		M	\$1,800	\$0	-
Barriers and Guardrails		M	\$180	\$0	_
Equipment/Animal Passes					_
Highway Planting					_
Replacement Planting					_
Irrigation Modification					_
Relocate Private Irrigation					_
Facilities					
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation		LS	\$0	\$0	_
Resident Engineer Office Space	1	LS	\$100,000	\$100,000	_
Curb & Gutter	3600	M	\$50	\$180,000	_
Median Curb	1600	M	\$35	\$56,000	_
Side Walk	5300	M2	\$100	\$530,000	_
Landscaping/Irrigation	1	LS	\$250,000	\$250,000	_
SWPPP	1	LS	\$25,000	\$25,000	_
Sound Wall					_
Utilities (Gas, Elec., Water, sewer)	1	LS	\$930,000	\$930,000	- -
		Subtotal Spec	ialty Items		\$4,646,000
		Suototal Spec	rarey reems		\$ 1,010,000
Section 5 Traffic Items					
Lighting	1	LS	\$200,000	\$200,000	
Traffic Delineation Items	1	LS	\$49,000	\$49,000	-
Traffic Signals	1	LS	\$1,000,000	\$1,000,000	-
Overhead Sign Structures	1	LS	\$100,000	\$100,000	-
Roadside Signs	1	LS	\$50,000	\$50,000	-
Traffic Control Systems	1	LS	\$150,000	\$150,000	-
Transportation Management Plan	1	LS	\$250,000	\$250,000	-
Temporary K-Rail					-
TemporaryDetour Road					-
Signal Modification	1	LS	\$100,000	\$100,000	-
					_
			Subtotal Traff	ic Items	\$1,899,000
		TOTAL SEC	TIONS 1 thru 5		\$20,227,500
NOTE: Extra lines are provided for item	ne not listed use	additional lines	ac annropriato		
NOTE: Extra lines are provided for iten	ns not fisted, use	auditional lines	as appropriate.	Dogg No	2 of 6
				rage No	3 of6

Section 6 Minor Items			<u>Item Cost</u>	Section Cost
		\$20,227,500 x 10% (Subtotal Sections 1 thru 5)	= \$2,022,750	
		TOTAL MINOR ITEMS		\$2,022,750
Section 7 Roadway Mobi	<u>lization</u>			
		\$22,250,250 x 10% (Subtotal Sections 1 thru 6)	= \$2,225,025	
		TOTAL ROADWAY MOE	BILIZATION	\$2,225,025
Section 8 Roadway Additi	ions_			
	Supplemental '	Work		
		\$22,250,250 x 10% (Subtotal Sections 1 thru 6)	= \$2,225,025	
	Contingencies			
		\$22,250,250 x 40% (Subtotal Sections 1 thru 6)	= \$8,900,100 (**%)	
		TOTAL ROADWAY ADD	OITIONS	\$11,125,125
		TOTAL ROADWAY ITEM (Subtotal Sections 1 thru		\$35,600,400
		(Subtotal Sections 1 tillu	0)	
Estimate Prepared By	Samuel Aguirr (Print N		re # (408)-392-7240	Date 9/11/2003
Estimate Checked By		Phon	e#	Date
	(Print 1	Name)		
** Use 25% at the PSR St ** Use appropriate percen				
ose appropriate percen	inge per Chapte	1 20.		Page No. 4 of 6

П	STR	UCT	URES	ITEN	ЛS

	Structure (1)	Structure (2)	Structure (3)		
Bridge Name	Warm Springs/Mission grade separation				
Structure Type	CIP Concrete				
Width (out to out) - (m)	40				
Span Lengths - (m)	45				
Total Area - (m2)	1800	0			
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization and 20% contingency)	\$1,750	<b>\$</b> 0			
Total Cost for Structure		\$0			
Total Cost for Structure	\$3,150,000	Φ0			
			STRUCTURES IT		\$3,150,000
Railroad Related Costs:	LS			\$0	-
		SUBTOTAL F	RAILROAD ITEM	S	\$0
	(Sui		JCTURES ITEMS tems plus Railroad	Items)	\$3,150,000
COMMENTS:					
Estimate Prepared By	Samuel Aguirre (Print Name)	Phone #	(408)-392-7240	_ Date	9/11/2003
NOTE: If appropriate, atta	ach additional pages and backu	p.		Page No	5 of6

III. RIGHT OF WAY ITEMS	CURRENT VALUE	ESCALATED VALUE (@ 5% Per Year)
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$9,500,000	(@ 3/01ct 1ctt)
B. Utility Relocation (State share)	\$0	
C. Relocation Assistance	\$0	
D. Clearance/Demolition	\$0	
E. Title and Escrow Fees	<u>\$0</u>	
	TOTAL RIGHT OF WAY	
=	ated Date of Right of Way Certification which Values are Escalated)	ation
F. Construction Contract Work		
Brief Description of Work:		
		<u> </u>
Right of Way Branch Cost Estimate for	or Work *	
* This dollar amount is to be included Structures Items of Work, as appropriately Right of Way Items.	•	
COMMENTS:		
Estimate Prepared By Samuel Aguirre (Print Name)	Phone #(408) 392	2-7240 Date 9/11/2003
NOTE: If appropriate, attach additional pages and	backup.	Page No6 of6

### PRELIMINARY CONSTRUCTION COST SUMMARY

PROJECT	DESCRIPTION:			
Limits <u>H</u>	Kato Road west of Milm	ont Drive and Scott Creek Road, City o	of Fremont, Alamed	da County
Proposed Imp	provement (Scope)	New I-880 Overcrossing from Kato I	Road to the future a	alignment for Fremont
Boulevard. No	ote this estimate only inc	ludes work from west of the Kato/Miln	nont intersection.	
Alternate <u>I</u>	D3A			
		SUMMARY OF PROJECT COST	Γ ESTIMATE	
7	ГОТAL ROADWAY IT	EMS		\$13,899,688
ר	ΓΟΤΑL STRUCTURE I	TEMS		\$2,145,000
SUBTOTAL CONSTRUCTION		ICTION COSTS	_	\$16,044,688
7	ГОТАL RIGHT OF WA	Y ITEMS (Current Value)	_	\$8,635,000
ר	ГОТАL PROJECT CAP	ITAL OUTLAY COSTS		\$24,679,688
Reviewed by I	District Program Manago	er(Signatu	ura)	
		(Signate	ne)	
Approved by I	Project Manager	(Signature)	Date	
				Page No1 of6

Section 1 Earthwork Roadway Excavation	<u>Quantity</u> 1790	<u>Unit</u> M3	<u>Unit Price</u> \$25	<u>Item Cost</u> \$44,750	Section Cost
Imported Borrow	35625	M3	\$20	\$712,500	=
Clearing & Grubbing	1	LS	\$104,250	\$104,250	_
Develop Water Supply	1	LS	\$0	\$0	-
Develop water Suppry  Demolition		LS	<u>\$0</u> \$0	\$0 \$0	_
Demontion		LS	<u>\$0</u>	\$0	-
			_		-
			Subtotal Earth	work	\$861,500
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)			_		_
PCC Pavement (Depth)	15770		¢150	\$2.265.500	_
Pavement (Asphalt Concrete Roadway)	15770	<u>M2</u>	\$150	\$2,365,500	-
Asphalt Concrete Lean Concrete Base					_
					_
Cement-Treated Base					_
Aggregate Base			_		_
Treated Permeable Base					=
Aggregate Subbase					-
Pavement Reinforcing Fabric					=
Edge Drains	4000	3.40	<b>0.40</b>	Φ1 CO OOO	_
Remove Pavement	4000	M2	\$40	\$160,000	-
	Subtotal Paveme	ent Structural	Section		\$2,525,500
Section 3 Drainage					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$122,500	\$122,500	_
Pumping Plants					_
Project Drainage					_
(X-Drains, overside, etc.)		LS	\$0	\$0	
Electric Tower	1	LS	\$500,000	\$500,000	- -
					<del>-</del> -
			Subtotal Drain	age	\$622,500
*Reference sketch showing typical paver (if available) T.I., R-Value and date who NOTE: Extra lines are provided for item	en tests were perfo	ormed.	of the roadway. I		

Section 4 Specialty Items	Quantity	<u>Unit</u>	Unit Price	Item Cost	Section Cost
Retaining Walls	3325	M2	\$750	\$2,493,750	_
Noise Barriers (H=4.3m)		M	\$1,800	\$0	<del>-</del>
Barriers and Guardrails	1010	M	\$180	\$181,800	<del>-</del>
Equipment/Animal Passes				-	<del>-</del>
Highway Planting				-	<del>-</del>
Replacement Planting		·		-	=
Irrigation Modification	1	LS	\$50,000	\$50,000	_
Relocate Private Irrigation					
Facilities					_
Erosion Control	1	LS	\$50,000	\$50,000	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$50,000	\$50,000	_
Resident Engineer Office Space	1	LS	\$50,000	\$50,000	_
Curb & Gutter		M	\$0	\$0	_
Median Curb		M	\$0	\$0	_
Side Walk	2875	M2	\$100	\$287,500	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	_
Sound Wall					_
		Subtotal Speci	alty Items		\$3,163,050
Section 5 Traffic Items					
Lighting	1	LS	\$100,000	\$100,000	
Traffic Delineation Items	1	LS	\$15,000	\$15,000	_
Traffic Signals	1	LS	\$500,000	\$500,000	_
Overhead Sign Structures			\$0	\$0	_
Roadside Signs	1	LS	\$10,000	\$10,000	_
Traffic Control Systems	1	LS	\$50,000	\$50,000	_
Transportation Management Plan	1	LS	\$50,000	\$50,000	_
Temporary K-Rail					_
TemporaryDetour Road					_
Signal Modification		LS	\$0	\$0	_

Subtotal Traffic Items

\$725,000

TOTAL SECTIONS 1 thru 5

\$7,897,550

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_

Section 6 Minor Items		<u>Item Cost</u>	Section Cost
	\$7,897,550 (Subtotal Sect	x 10% = \$789,755 ions 1 thru 5)	
	TOTAL MIN	OR ITEMS	\$789,755
Section 7 Roadway Mob	<u>ilization</u>		
	\$8,687,305 (Subtotal Sect	x 10% = \$868,731 cions 1 thru 6)	
	TOTAL ROA	DWAY MOBILIZATION	\$868,731
Section 8 Roadway Addi	tions _		
	Supplemental Work		
	\$8,687,305 (Subtotal Sect	x 10% = \$868,731 ions 1 thru 6)	
	Contingencies		
		$\frac{x}{1} = \frac{40\%}{1} = \frac{33,474,922}{(**\%)}$	
	TOTAL ROA	DWAY ADDITIONS	\$4,343,653
		DWAY ITEMS ections 1 thru 8)	\$13,899,688
	(Subtotal Se	actions I tillu 0)	
Estimate Prepared By	Mike Sondag (Print Name)	Phone # 408-392-7200	Date 7/18/2003
Estimate Checked By	(Print Name)	Phone #	Date
** Use 25% at the PSR S ** Use appropriate perce	tage or a higher or lower rate if	justified.	
ose appropriate perce	mas per chapter 20.		Page No. 4 of 6

II.	STR	UCTU	JRES	<b>ITEMS</b>
-----	-----	------	------	--------------

	Structure (1)	Structure (2)	Structure (3)		
Bridge Name	I-880 Overpass				
Structure Type	Conc Single Span				
Width (out to out) - (m)	26				
Span Lengths - (m)	55				
Total Area - (m2)	1430	0			
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization					
and 20% contingency)	\$1,500	\$0			
Total Cost for Structure	\$2,145,000	\$0			
Railroad Related Costs:	LS		TRUCTURES ITI I Cost for Structure		\$2,145,000
Kamoad Kelated Costs.				ΨΟ	
		SUBTOTAL R	RAILROAD ITEM	S	\$0
	(Sun		ICTURES ITEMS ems plus Railroad		\$2,145,000
COMMENTS:					
Estimate Prepared By Mil	(Print Name)	Phone #	408-392-7200	_ Da	7/18/2003
NOTE: If appropriate, attach a	additional pages and backup	).		Page No	_5 of6

III. RIGHT OF WAY ITEMS		CURRENT VALUE ESC	CALATED VALUE (@ 5% Per Year)	
	Acquisition, including excess lands,		(00/01011011)	
•	damages to remainder(s) and Goodwill	\$8,560,000		
В. 1	Utility Relocation (State share)	\$75,000		
C. 1	Relocation Assistance	\$0		
D.	Clearance/Demolition	\$0		
E. 7	Title and Escrow Fees	\$0		
		TOTAL RIGHT OF WAY ITEM (Current Value)		
		Anticipated Date of Right of Way Certification Date to which Values are Escalated)		
	F. Construction Contract Work			
	Brief Description of Work:			
			_	
			-	
	Right of Way Branch Cost Esti	mate for Work *	<u> </u>	
	* This dollar amount is to be in Structures Items of Work, as Right of Way Items.	acluded in the Roadway and/or appropriate. <b>Do not</b> include in		
CO	MMENTS:			
Esti	mate Prepared By Mike Sondag (Print Na	Phone # 408-392-7200 me)	Date7/18/2003	
NO	TE: If appropriate, attach additional pag	ges and backup.	Page No6 of6	

Page No. \_\_1\_\_ of \_\_6\_\_\_

PROJECT DESCRIPTION:

#### PRELIMINARY CONSTRUCTION COST SUMMARY

# Limits Calaveras Blvd between Abbott Ave & Town Center Drive, City of Milpitas, Santa Clara County **Proposed Improvement (Scope)** Widening Calaveras Boulevard to 6 lanes, 3 in each direction with auxiliary lanes. Alternate E1A \_\_\_\_\_\_ SUMMARY OF PROJECT COST ESTIMATE TOTAL ROADWAY ITEMS \$10,245,532 TOTAL STRUCTURE ITEMS \$10,192,000 SUBTOTAL CONSTRUCTION COSTS \$20,437,532 TOTAL RIGHT OF WAY ITEMS (Current Value) \$5,133,000 TOTAL PROJECT CAPITAL OUTLAY COSTS \$25,570,532 Reviewed by District Program Manager \_\_\_\_\_ (Signature) Approved by Project Manager Date (Signature)

I. ROADWAY ITEMS					
Section 1 Earthwork	Quantity	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway Excavation	19595	M3	\$25	\$489,875	
Imported Borrow	0	M3	\$20	\$0	_
Clearing & Grubbing	1	LS	\$435,300	\$435,300	_
Develop Water Supply		LS	\$0	\$0	_
Demolition		LS	\$0	\$0	_
					_
					<u>-</u>
			Subtotal Earth	work	\$925,175
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					
PCC Pavement (Depth)					_
Pavement (Asphalt Concrete Roadway)	18665	M2	\$150	\$2,799,750	_
Asphalt Concrete	18003	1012	Ψ130	Ψ2,177,130	_
Lean Concrete Base					_
Cement-Treated Base					_
Aggregate Base					_
Treated Permeable Base		-			_
Aggregate Subbase					_
Pavement Reinforcing Fabric					_
Edge Drains					_
Remove Pavement	1560	M2	\$40	\$62,400	_
remove i uvenient	1300	1112	Ψ10	Ψ02,100	_
-			_		_
	Subtotal Paveme	ent Structural	Section		\$2,862,150
Section 3 Drainage Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$150,000	\$150,000	_
Pumping Plants			φ130,000	φ130,000	_
Project Drainage					_
(X-Drains, overside, etc.)		LS	\$0	\$0	
(11 2 Julius, 8 verside, etc.)				<u> </u>	_
					_
					_
					=
			Subtotal Drain	age	\$150,000
*Reference sketch showing typical paver	ment structural sec	tion elements	of the roadway. I	nclude	
*Reference sketch showing typical paver (if available) T.I., R-Value and date wh			of the roadway. Is	nclude	
*Reference sketch showing typical paver (if available) T.I., R-Value and date wh NOTE: Extra lines are provided for item	en tests were perfo	ormed.	·	nclude	

Section 4 Specialty Items	Quantity	<u>Unit</u>	Unit Price	Item Cost	Section Cost
Retaining Walls	0	M2	\$750	\$0	_
Noise Barriers (H=4.3m)	0	M	\$1,800	\$0	_
Barriers and Guardrails	800	M	\$180	\$144,000	_
Equipment/Animal Passes					_
Highway Planting					_
Replacement Planting					_
Irrigation Modification	1	LS	\$100,000	\$100,000	_
Relocate Private Irrigation					_
Facilities					
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$100,000	\$100,000	_
Resident Engineer Office Space	1	LS	\$75,000	\$75,000	_
Curb & Gutter		M	\$0	\$0	_
Median Curb		M	\$0	\$0	_
Side Walk	6150	M2	\$100	\$615,000	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	_
Sound Wall					_
		Subtotal Spec	cialty Items		\$1,134,000
Section 5 Traffic Items					
Lighting	1	LS	\$125,000	\$125,000	
Traffic Delineation Items	1	LS	\$25,000	\$25,000	_
Traffic Signals	1	LS	\$400,000	\$400,000	_
Overhead Sign Structures			\$0	\$0	_
Roadside Signs	1	LS	\$50,000	\$50,000	_
Traffic Control Systems	1	LS	\$100,000	\$100,000	_
Transportation Management Plan	1	LS	\$50,000	\$50,000	_
Temporary K-Rail					_
TemporaryDetour Road					_
Signal Modification		LS	\$0	\$0	_
			_		_
			Cultated Troff	ia Itama	\$750,000

Subtotal Traffic Items

\$750,000

TOTAL SECTIONS 1 thru 5

\$5,821,325

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_\_

Section 6 Minor Items	<u>Item Cost</u>	Section Cost
	\$5,821,325 x 10% = \$582,133 (Subtotal Sections 1 thru 5)	
	TOTAL MINOR ITEMS	\$582,133
Section 7 Roadway Mobilization		
	\$6,403,458 x 10% = \$640,346 (Subtotal Sections 1 thru 6)	
	TOTAL ROADWAY MOBILIZATION	\$640,346
Section 8 Roadway Additions		
Supplemental	Work	
Supplementar	\$6,403,458 x 10% = \$640,346 (Subtotal Sections 1 thru 6)	
Contingencies		
Commigences	$\frac{\$6,403,458}{\text{(Subtotal Sections 1 thru 6)}}$ x 40% = $\frac{\$2,561,383}{(**\%)}$	
	TOTAL ROADWAY ADDITIONS	\$3,201,729
	TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)	\$10,245,532
Estimate Prepared By Mike Sondag (Print	Phone # 408-392-7200 Name)	Date 7/18/2003
Estimate Checked By (Print	Phone #	Date
** Use 25% at the PSR Stage or a higher ** Use appropriate percentage per Chapte		Page No4 of6

II.	STRI	JCTU	JRES	<b>ITEMS</b>
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		Structure (1)	Structure (2)	Structure (3)			
Bridge Name		Main Street Overpass	Railroad Overpass				
Structure Type		Conc Single Span Widening	Conc Single Span Widening				
Width (out to out) - (m)		22	17				
Span Lengths - (m)		172	120				
Total Area - (m2)		3784	2040				
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization							
and 20% contingency)		\$1,750	\$1,750				
Total Cost for Structure		\$6,622,000	\$3,570,000				
				TRUCTURES IT		\$10	,192,000
Railroad Related Costs:		LS			\$0		
			SUBTOTAL RA	AILROAD ITEM	IS	\$0	
		(Sun	TOTAL STRUG	CTURES ITEMS ms plus Railroad		\$10	,192,000
COMMENTS:							
Estimate Prepared By	Mike Sondag (Print N	Name)	Phone #	408-392-7200	- I	Date	7/18/2003
NOTE: If appropriate, atta	ach additional p	ages and backup	<b>)</b> .		Page No.	o5	of6

III. RIGHT OF WAY ITEMS	CURRENT VALUE	ESCALATED VALUE (@ 5% Per Year)
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$4,883,000	
B. Utility Relocation (State share)	\$250,000	
C. Relocation Assistance	\$0	
D. Clearance/Demolition	\$0	
E. Title and Escrow Fees	\$0	
	TOTAL RIGHT OF WAY (Current	
•	ted Date of Right of Way Certific which Values are Escalated)	ation
F. Construction Contract Work		
Brief Description of Work:		
Right of Way Branch Cost Estimate for	r Work *	
* This dollar amount is to be included i Structures Items of Work, as appropri Right of Way Items.	•	
COMMENTS:		
Estimate Prepared By Mike Sondag (Print Name)	Phone # 408-392-	7/200 Date 7/18/2003
NOTE: If appropriate, attach additional pages and b	oackup.	Page No6 of6

Page No. \_\_1\_\_ of \_\_6\_\_\_

#### PRELIMINARY CONSTRUCTION COST SUMMARY

# PROJECT DESCRIPTION: Limits Highway237/Calaveras Blvd between Calaveras/I-880 interchange and I-680/Calaveras interchange, including median connection from Overhead HOV, City of Milpitas, Santa Clara County **Proposed Improvement (Scope)** Overhead HOV from I-880 O/C along Serra Way/Los Coches \*Note this estimate does not include potential widening required at Calaveras/I-680 bridge. **Alternate** E3A SUMMARY OF PROJECT COST ESTIMATE TOTAL ROADWAY ITEMS \$20,965,305 TOTAL STRUCTURE ITEMS \$67,500,000 SUBTOTAL CONSTRUCTION COSTS \$88,465,305 TOTAL RIGHT OF WAY ITEMS (Current Value) \$31,530,000 TOTAL PROJECT CAPITAL OUTLAY COSTS \$119,995,305 Reviewed by District Program Manager \_\_\_\_\_ (Signature) Approved by Project Manager Date (Signature)

I. ROADWAY ITEMS					
Section 1 Earthwork	Quantity	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway Excavation	12507	M3	\$25	\$312,675	
Imported Borrow	21018	M3	\$20	\$420,360	_
Clearing & Grubbing	1	LS	\$750,000	\$750,000	_
Develop Water Supply		LS	\$0	\$0	_
Demolition		LS	\$0	\$0	_
					_
					_
			Subtotal Earth	work	\$1,483,035
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					
PCC Pavement (Depth)					_
Pavement (Asphalt Concrete Roadway)	19513	M2	\$150	\$2,926,950	_
Asphalt Concrete				· · · · · · · · · · · · · · · · · · ·	_
Lean Concrete Base					_
Cement-Treated Base			_	· -	_
Aggregate Base					_
Treated Permeable Base					_
Aggregate Subbase				· <del></del>	_
Pavement Reinforcing Fabric					_
Edge Drains					=
Remove Pavement	600	M2	\$40	\$24,000	_
			<u>Ψ.υ</u>	Ψ2 1,000	<del>-</del> -
	Subtotal Paveme	\$2,950,950			
Section 3 Drainage					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$250,000	\$250,000	_
Pumping Plants					_
Project Drainage					_
(X-Drains, overside, etc.)		LS	\$0	\$0	
					_
					_
					_
					_
	Subtotal Drainage			\$250,000	
*Reference sketch showing typical paver	nent structural sec	tion elements	of the roadway. I	nclude	
(if available) T.I., R-Value and date who			•		
NOTE: Extra lines are provided for item	s not listed use ad	lditional lines	as appropriate		
2.0 22. Zada inies die provided for item	not notou, use ut		as appropriate.	Page No	2 of6
				1 ugc 110	010

Section 4 Specialty Items	Quantity	<u>Unit</u>	Unit Price	Item Cost	Section Cost
Retaining Walls	2996	<u>M2</u>	\$750	\$2,247,000	_
Noise Barriers (H=4.3m)		M	\$1,800	\$0	_
Barriers and Guardrails	8784	M	\$180	\$1,581,120	_
Equipment/Animal Passes					_
Highway Planting					_
Replacement Planting					_
Irrigation Modification	1	LS	\$100,000	\$100,000	_
Relocate Private Irrigation					
Facilities					_
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection	•	LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$100,000	\$100,000	_
Resident Engineer Office Space	1	LS	\$150,000	\$150,000	_
Curb & Gutter		M	\$0	\$0	_
Median Curb		M	\$0	\$0	_
Side Walk	2000	M2	\$100	\$200,000	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	-
Sound Wall					-
		Subtotal Spec	ialty Items		\$4,478,120
Section 5 Traffic Items	1	1.0	¢1 000 000	¢1 000 000	
Lighting	1	LS	\$1,000,000	\$1,000,000	-
Traffic Delineation Items	1	LS	\$50,000	\$50,000	-
Traffic Signals	1	LS	\$500,000	\$500,000	-
Overhead Sign Structures	1	LS	\$500,000	\$500,000	-
Roadside Signs	1	LS	\$50,000	\$50,000	_
Traffic Control Systems	1	LS	\$500,000	\$500,000	_
Transportation Management Plan	1	LS	\$150,000	\$150,000	_
Temporary K-Rail					_
TemporaryDetour Road					_
Signal Modification		LS	\$0	\$0	_

Subtotal Traffic Items

\$2,750,000

TOTAL SECTIONS 1 thru 5

\$11,912,105

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_\_

Section 6 Minor Items			Item Cost	Section Cost
	\$11,912,1 (Subtotal 3	05 x 10% Sections 1 thru 5)	= \$1,191,211	
	TOTAL M	MINOR ITEMS		\$1,191,211
Section 7 Roadway Mob	<u>ilization</u>			
	\$13,103,3 (Subtotal)	16 x 10% Sections 1 thru 6)	= \$1,310,332	
	TOTAL R	OADWAY MOBIL	IZATION	\$1,310,332
Section 8 Roadway Addit	tions .			
	Supplemental Work			
	\$13,103,3 (Subtotal 3	16 x 10% Sections 1 thru 6)	= \$1,310,332	
	Contingencies			
	\$13,103,3 (Subtotal )	16 x 40% Sections 1 thru 6)	= \$5,241,326 (**%)	
	TOTAL R	OADWAY ADDIT	TIONS	\$6,551,658
		OADWAY ITEMS		\$20,965,305
Estimate Prepared By	Mike Sondag (Print Name)	Phone #	# 408-392-7200	Date 7/18/2003
Estimate Checked By	(Print Name)	Phone #	#	Date
** Use 25% at the PSR S ** Use appropriate percent	tage or a higher or lower ra ntage per Chapter 20.	te if justified.		
				Page No. 4 of 6

II.	STRU	CTURES	<b>ITEMS</b>

	Structure (1)	Structure (2)	Structure (3)		
Bridge Name	Overhead HOV Structure				
Structure Type	CIP Concrete Bridge				
Width (out to out) - (m)	18				
Span Lengths - (m)	2500				
Total Area - (m2)	45000	0			
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization					
and 20% contingency)	\$1,500	\$0			
Total Cost for Structure	\$67,500,000	\$0			
			TRUCTURES ITE Cost for Structure		\$67,500,000
Railroad Related Costs:	LS			\$0	
		SUBTOTAL R	AILROAD ITEMS	S	\$0
	(Sun		CTURES ITEMS ems plus Railroad l		\$67,500,000
COMMENTS:					
Estimate Prepared By	Mike Sondag (Print Name)	Phone # _	408-392-7200	Date	7/18/2003
NOTE: If appropriate, atta	ach additional pages and backup	).		Page No5	6 of6

III. RIGHT OF WAY ITEMS	CURRENT VALUE ES	CALATED VALUE (@ 5% Per Year)
A. Acquisition, including excess lands,		(00/01011001)
damages to remainder(s) and Goody	vill \$31,030,000	
B. Utility Relocation (State share)	\$500,000	
C. Relocation Assistance	<u>\$0</u>	
D. Clearance/Demolition	<u>\$0</u>	
E. Title and Escrow Fees	\$0	
	TOTAL RIGHT OF WAY ITE (Current Value	
	Anticipated Date of Right of Way Certification (Date to which Values are Escalated)	
F. Construction Contract Work		
Brief Description of Work		
		_
		_
Right of Way Branch Cost	Estimate for Work *	_
ragile of way Branch Cost	Estimate for Work	
	be included in the Roadway and/or a, as appropriate. <b>Do not</b> include in	
COMMENTS:		
Estimate Prepared By Mike Sonday (Prin	Phone # 408-392-7200 t Name)	Date 7/18/2003
NOTE: If appropriate, attach additional	I pages and backup.	Page No6 of6

Approved by Project Manager

### PRELIMINARY CONSTRUCTION COST SUMMARY

## PROJECT DESCRIPTION: Limits Highway237/Calaveras Blvd between Calaveras/I-880 interchange and I-680/Calaveras interchange, including median connection from Overhead HOV, City of Milpitas, Santa Clara County **Proposed Improvement (Scope)** Overhead HOV from I-880 O/C along Calaveras Blvd \*Note this estimate does not include potential widening required at Calaveras/I-680 bridge. **Alternate** SUMMARY OF PROJECT COST ESTIMATE TOTAL ROADWAY ITEMS \$22,316,400 TOTAL STRUCTURE ITEMS \$57,764,250 SUBTOTAL CONSTRUCTION COSTS \$80,080,650 TOTAL RIGHT OF WAY ITEMS (Current Value) \$13,619,000 TOTAL PROJECT CAPITAL OUTLAY COSTS \$93,699,650 Reviewed by District Program Manager \_\_\_\_\_ (Signature)

Page No. \_\_1\_\_ of \_\_6\_\_\_

Date

(Signature)

I. ROADWAY ITEMS					
Section 1 Earthwork	<b>Quantity</b>	<u>Unit</u>	<b>Unit Price</b>	Item Cost	Section Cost
Roadway Excavation	21787	M3	\$25	\$544,675	
Imported Borrow	8278	M3	\$20	\$165,560	
Clearing & Grubbing	1	LS	\$219,740	\$219,740	
Develop Water Supply		LS	\$0	\$0	
Demolition		LS	\$0	\$0	
					_
					_
			Subtotal Earth	work	\$929,975
Section 2 Pavement Structural Section*					
PCC Pavement (Depth)					
PCC Pavement (Depth)					_
Pavement (Asphalt Concrete Roadway)	31850	M2	\$150	\$4,777,500	=
Asphalt Concrete				1 7 7	=
Lean Concrete Base					_
Cement-Treated Base					_
Aggregate Base					=
Treated Permeable Base					=
Aggregate Subbase					_
Pavement Reinforcing Fabric					_
Edge Drains					_
Remove Pavement	600	M2	\$40	\$24,000	=
					-
					-
	Subtotal Paveme	ent Structural	Section		\$4,801,500
Section 3 Drainage					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$250,000	\$250,000	_
Pumping Plants					_
Project Drainage					_
(X-Drains, overside, etc.)		LS	\$0	\$0	
					_
					_
					_
					_
			Subtotal Drain	age	\$250,000
*Reference sketch showing typical paver	nent structural sec	tion elements	of the roadway. Is	nclude	
(if available) T.I., R-Value and date who			•		
NOTE: Extra lines are provided for item	_		as appropriate.		
are provided for nom			-FLF	Page No	2 of6

Section 4 Specialty Items	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Retaining Walls	4128	M2	\$750	\$3,096,000	_
Noise Barriers (H=4.3m)		M	\$1,800	\$0	<u>-</u>
Barriers and Guardrails	1750	M	\$180	\$315,000	_
Equipment/Animal Passes	_				_
Highway Planting					-
Replacement Planting	_				_
Irrigation Modification	1	LS	\$100,000	\$100,000	<u>-</u>
Relocate Private Irrigation					
Facilities					<u>-</u>
Erosion Control	1	LS	\$100,000	\$100,000	_
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$100,000	\$100,000	_
Resident Engineer Office Space	1	LS	\$150,000	\$150,000	_
Curb & Gutter		M	\$0	\$0	_
Median Curb		M	\$0	\$0	_
Side Walk	0	M2	\$100	\$0	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	-
Sound Wall					-
		Subtotal Speci	alty Items		\$3,861,000
Section 5 Traffic Items					
Lighting	1	LS	\$1,000,000	\$1,000,000	_
Traffic Delineation Items	1	LS	\$137,298	\$137,298	_
Traffic Signals	1	LS	\$500,000	\$500,000	_
Overhead Sign Structures	1	LS	\$500,000	\$500,000	
Roadside Signs	1	LS	\$50,000	\$50,000	
Traffic Control Systems	1	LS	\$500,000	\$500,000	_
Transportation Management Plan	1	LS	\$150,000	\$150,000	
Temporary K-Rail					_
TemporaryDetour Road					-
Signal Modification		LS	\$0	\$0	-

Subtotal Traffic Items

\$2,837,298

TOTAL SECTIONS 1 thru 5

\$12,679,773

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_\_

Section 6 Minor Items			Item Cost	Section Cost
		\$12,679,773 x 10% (Subtotal Sections 1 thru 5)	= \$1,267,977	
		TOTAL MINOR ITEMS		\$1,267,977
Section 7 Roadway Mo	<u>bilization</u>			
		\$13,947,750 x 10% (Subtotal Sections 1 thru 6)	= \$1,394,775	
		TOTAL ROADWAY MOBI	LIZATION	\$1,394,775
Section 8 Roadway Add	litions			
	Supplemental V	Vork		
		\$13,947,750 x 10% (Subtotal Sections 1 thru 6)	= \$1,394,775	
	Contingencies			
		\$13,947,750 x 40% (Subtotal Sections 1 thru 6)	= \$5,579,100 (**%)	
		TOTAL ROADWAY ADDIT	ΓIONS	\$6,973,875
		TOTAL ROADWAY ITEMS (Subtotal Sections 1 thru 8)		\$22,316,400
Estimate Prepared By	Ricardo Morale (Print N		# 408-392-7200	Date 7/18/2003
Estimate Checked By		Phone	#	Date
	(Print N	lame)		
** Use 25% at the PSR *  ** Use appropriate percentage **				
озе арргориате рего	emage per Chapter	20.		Page No4 of6

II.	STR	UCTU	JRES	<b>ITEMS</b>
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	Structure (1)	Structure (2)	Structure (3)		
Bridge Name	Overhead HOV Structure	Overhead HOV Structure	Widening Three existing bridges		
Structure Type	CIP Concrete Bridge	CIP Concrete Bridge	CIP Concrete Bridge		
Width (out to out) - (m)	14	18	33		
Span Lengths - (m)	600	845	387		
Total Area - (m2)	8400	15210	12771		
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization					
and 20% contingency)	\$1,500	\$1,500	\$1,750		
Total Cost for Structure	\$12,600,000	\$22,815,000	\$22,349,250		
			TRUCTURES IT Cost for Structur		\$57,764,250
Railroad Related Costs:	LS			\$0	<u> </u>
				-	<u> </u>
		GLIDTOTAL D	AN DOAD ITEM		
		SUBTOTAL R	AILROAD ITEM	18	\$0
	(Sun		CTURES ITEMS ems plus Railroad		\$57,764,250
COMMENTS:					
Estimate Prepared By	Ricardo Morales (Print Name)	Phone #_	408-392-7200	_ D	ate 7/18/2003
NOTE: If appropriate, atta	ach additional pages and backup	).		Page No.	_5 of6

III. RIGHT O	F WAY ITEMS	CURRENT VALUE	ESCALATED VALU (@ 5% Per Year	
A. Acquisition	, including excess lands,		( = 2,1 = 22 = 2111	,
damages to	remainder(s) and Goodwill	\$13,119,000		
B. Utility Relo	ocation (State share)	\$500,000		
C. Relocation	Assistance	\$0		
D. Clearance/I	Demolition	<u>\$0</u>		
E. Title and Es	scrow Fees	\$0		
		TOTAL RIGHT OF WAY (Current V		13,619,000
		cipated Date of Right of Way Certificat to which Values are Escalated)	ion	
F. Constru	ction Contract Work			
Bi	rief Description of Work:			
_				
_				
_				
R	ight of Way Branch Cost Estimate	e for Work *		
	This dollar amount is to be includ Structures Items of Work, as appr Right of Way Items.			
COMMENTS:				
Estimate Prepa	red By Ricardo Morales (Print Name)	Phone # 408-392-72	200 Date	7/18/2003
NOTE: If appr	ropriate, attach additional pages a	nd backup.	Page No6_	of 6
			<i></i>	

Page No. \_\_1\_\_ of \_\_6\_\_\_

### PRELIMINARY CONSTRUCTION COST SUMMARY

# PROJECT DESCRIPTION: Limits Montague Expressway between Great Mall Parkway & I-680, City of Milpitas, Santa Clara County **Proposed Improvement (Scope)** Construct 2 elevated direct HOV freeway connectors between Great Mall Parkway and I680 along Montague Expressway. Alternate SUMMARY OF PROJECT COST ESTIMATE TOTAL ROADWAY ITEMS \$23,703,680 TOTAL STRUCTURE ITEMS \$25,935,000 SUBTOTAL CONSTRUCTION COSTS \$49,638,680 TOTAL RIGHT OF WAY ITEMS (Current Value) \$16,500,000 TOTAL PROJECT CAPITAL OUTLAY COSTS \$66,138,680 Reviewed by District Program Manager \_\_\_\_\_ (Signature) Approved by Project Manager Date (Signature)

Section 1 Earthwork	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Roadway Excavation	40000	M3	\$25	\$1,000,000	
Imported Borrow	18000	M3	\$20	\$360,000	-
Clearing & Grubbing	1	LS	\$1,000,000	\$1,000,000	_
Develop Water Supply	1	LS	\$0	\$0	_
Demolition (Buildings)	1	LS	\$500,000	\$500,000	-
, 5,					-
					-
			Subtotal Earth	work	\$2,860,000
Section 2 Pavement Structural Section*  PCC Pavement (Depth)  PCC Pavement (Depth)					-
Pavement (Asphalt Concrete Roadway)	40000	M2	\$150	\$6,000,000	_
Asphalt Concrete					_
Lean Concrete Base			_		_
Cement-Treated Base					_
Aggregate Base					_
Treated Permeable Base			_		_
Aggregate Subbase			_		_
Pavement Reinforcing Fabric			_		_
Edge Drains			_		_
Remove Pavement		M2	\$40	\$0	_
	Subtotal Paveme	ent Structural	Section		\$6,000,000
Section 3 Drainage					
Large Drainage Facilities	1	LS	\$300,000	\$300,000	_
Storm Drains	1	LS	\$0	\$0	_
Pumping Plants					=
Project Drainage					
(X-Drains, overside, etc.)	1	LS	\$0	\$0	_
			_		_
			_		_
			_		_
					_
			Subtotal Drain	age	\$300,000
*Reference sketch showing typical paver (if available) T.I., R-Value and date who NOTE: Extra lines are provided for item	en tests were perfo	ormed.		nclude Page No	2of6

Section 4 Specialty Items	Quantity	<u>Unit</u>	<u>Unit Price</u>	Item Cost	Section Cost
Retaining Walls	2000	<u>M2</u>	\$750	\$1,500,000	=
Noise Barriers (H=4.3m)	0	M	\$1,800	\$0	_
Barriers and Guardrails	2000	M	\$180	\$360,000	_
Equipment/Animal Passes					_
Highway Planting					_
Replacement Planting					_
Irrigation Modification					_
Relocate Private Irrigation					
Facilities	-	. <u> </u>			_
Erosion Control	1	LS	\$250,000	\$250,000	=
Slope Protection		LS	\$0	\$0	_
Water Pollution Control		LS	\$0	\$0	_
Hazardous Waste Work		LS	\$0	\$0	_
Environmental Mitigation	1	LS	\$250,000	\$250,000	_
Resident Engineer Office Space					_
Curb & Gutter	1300	M	\$60	\$78,000	_
Median Curb	4000	M2	\$100	\$400,000	_
Side Walk	5200	M2	\$100	\$520,000	_
Landscaping/Irrigation		LS	\$0	\$0	_
SWPPP		LS	\$0	\$0	_
Sound Wall					_
		Subtotal Speci	alty Items		\$3,358,000
Section 5 Traffic Items					
Lighting	1	LS	\$200,000	\$200,000	
Traffic Delineation Items	1	LS	\$150,000	\$150,000	-
Traffic Signals	1	LS	\$0	\$0	-
Overhead Sign Structures					-
Roadside Signs	1	LS	\$0	\$0	-
Traffic Control Systems	1	LS	\$200,000	\$200,000	-
Transportation Management Plan	1	LS	\$200,000	\$200,000	_
Temporary K-Rail	-		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	_
TemporaryDetour Road		·	1		=
Signal Modification	1	LS	\$200,000	\$200,000	_
			•	•	-

TOTAL SECTIONS 1 thru 5

Subtotal Traffic Items

\$950,000

\$13,468,000

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

Page No. \_\_3\_\_ of \_\_6\_\_\_

Section 6 Minor Items			Item Cost	Section Cost
	\$13,468,0 (Subtotal	000 x 10% Sections 1 thru 5)	= \$1,346,800	
	TOTAL N	MINOR ITEMS		\$1,346,800
Section 7 Roadway Mobi	<u>lization</u>			
	\$14,814,8 (Subtotal	800 x 10% Sections 1 thru 6)	= \$1,481,480	
	TOTAL I	ROADWAY MOBII	LIZATION	\$1,481,480
Section 8 Roadway Additi	ions .			
	Supplemental Work			
	\$14,814,8	800 x 10% Sections 1 thru 6)	= \$1,481,480	
	Contingencies			
	\$14,814,8	800 x 40% Sections 1 thru 6)	= \$5,925,920 (**%)	
	TOTAL I	ROADWAY ADDIT	TIONS	\$7,407,400
	_	ROADWAY ITEMS al Sections 1 thru 8)		\$23,703,680
Estimate Prepared By	Charmaine Zamora (Print Name)	Phone	# <u>(408)</u> 392-7200	Date 9/26/2003
Estimate Checked By		Phone :	#	Date
	(Print Name)			
	age or a higher or lower ra	ate if justified.		
** Use appropriate percen	itage per Chapter 20.			Page No4 of6

II.	STRI	UCTU	JRES	ITEMS
-----	------	------	------	-------

	Structure (1)	Structure (2)	Structure (3)					
Bridge Name	EB HOV Bridge	WB HOV Bridge	BART OC					
Structure Type	CIP Concrete Bridge	CIP Concrete Bridge	CIP Concrete Bridge					
Width (out to out) - (m)	7.2	7.2	50					
Span Lengths - (m)	1000	950	65					
Total Area - (m2)	7200	6840	3250					
Footing Type (pile/spread) Cost Per m2 (incl. 10% mobilization								
and 20% contingency)	\$1,500	\$1,500	\$1,500					
Total Cost for Structure	\$10,800,000	\$10,260,000	\$4,875,000					
			TRUCTURES IT Cost for Structur	res)	\$25,935,000			
Railroad Related Costs:	LS			\$0				
					<del></del>			
		SUBTOTAL R	AILROAD ITEM	1S	\$0			
	(Sun		CTURES ITEMS ems plus Railroad		\$25,935,000			
COMMENTS:								
	ne Zamora Print Name)	Phone # <u>(</u>	(408) 392-7200	_	Date 9/26/2003			
NOTE: If appropriate, attach additional addi	ional pages and backup	).		NOTE: If appropriate, attach additional pages and backup.  Page No5 of6				

III. RIGHT OF WAY ITEMS	CURRENT VALUE ES	SCALATED VALUE (@ 5% Per Year)	
A. Acquisition, including excess lands,		(00,01011000)	
damages to remainder(s) and Goodwill	\$16,000,000		
B. Utility Relocation (State share)	\$500,000		
C. Relocation Assistance	<u>\$0</u>		
D. Clearance/Demolition	<u>\$0</u>		
E. Title and Escrow Fees	<u>\$0</u>		
	TOTAL RIGHT OF WAY ITE (Current Value		
	nticipated Date of Right of Way Certification ate to which Values are Escalated)		
F. Construction Contract Work			
Brief Description of Work:			
		_	
		<del>_</del>	
Right of Way Branch Cost Estim	ate for Work *		
* This dollar amount is to be incl Structures Items of Work, as ap Right of Way Items.			
COMMENTS:			
Estimate Prepared By Charmaine Zamora (Print Nam		Date 9/26/2003	
NOTE: If appropriate, attach additional pages	s and backup.	Page No6 of6	

### VTA Highway Planning Studies Cost Estimate Summary

Improvement: C3 (Partial) Mohave Dr. to I-680 & Interchange
Date: May 2004

<u>ltem</u>	<u>Description</u>		Cost	<u>%</u>
1	Earthwork	\$	227,500	
2	Pavement	\$	1,500,000	
3	Landscaping	\$	50,000	
4	Structures:		·	
	a. Curb & Gutter	\$	50,000	
	b. Median Curb	\$	24,500	
	c. Side Walk	\$	204,000	
	d			
	e			
	f			
5	Soundwalls	\$	-	
6	Miscellaneous:	•	<b>-</b> 0.000	
	a. Ramp Metering System	\$	50,000	
	b. ITS	\$	50,000	
	c. Traffic Signals	\$	200,000	
7	d.	6	2.256.000	
7	Subtotal 1:	\$	2,356,000	
8	Advance Work (Based on DETAIL A - see page 2)	\$	341,620	20/
9	Drainage (0% to 20% of Subtotal 1)* Signing (0% to 5% of Subtotal 1)*	\$	58,900 47,120	3% 2%
10 11	Maintenance of Utilities (0% to 25% of Subtotal 1)*	\$	141,360	6%
12	Roadway Lighting & Electrical (0% to 15% of Subtotal 1)*	\$	28,272	1%
13	Environmental Mitigation (0% to 10% of Subtotal 1)*	\$	23,560	1%
14	Subtotal 2:		640,832	1 70
15	Subtotal 3 (Subtotals 1 + 2):	\$	2,996,832	
16	Mobilization (as % of Subtotal 3; 10% is default)	\$	299,683	10%
17	Subtotal 4 (Subtotal 3 + Mobilization)	\$	3,296,515	1070
18	Construction Contingency (35% of Subtotal 4)	\$	1,153,780	
19	• • • • • • • • • • • • • • • • • • • •		4,450,296	[1]
13	Constitution Custotal.	Ψ	4,400,200	1.1
20	Planning/Environmental Doc. (10% of [1])	\$	445,030	
21	Design Engineering & Management (15% of [1])	\$	667,544	
22	Construction Engineering & Management (10% of [1])	\$	445,030	
23		\$	1,557,603	
24	Plan./Eng. Contingency (35% of Subtotal 5)	\$	545,161	
25	Planning/Engineering Subtotal:	\$	2,102,765	
26 27 28	Land, Easements and Right of Way Subtotal Land, Easements and ROW Contingency (35% of Subtotal 4)  Planning/Engineering/ROW Subtotal:	\$ \$	140,000 49,000 <b>2,291,765</b>	[2]
29	Total ( [1] + [2] ):	\$	6,742,060	
30	or Estimated as:	\$	6,700,000	

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.

### VTA Highway Planning Studies Cost Estimate Summary

Improvement: C3 (Partial) Mohave Dr. to I-680 & Interchange
Date: May 2004

#### **DETAIL A**

<u>Item</u> <u>Description</u>		Cost	<u>%</u>
8	Advance Work	\$ 341,620	
8a	Temporary Work (0% to 5% of Subtotal 1)*	\$	0%
8b	Traffic Control/Detours (0% to 10% of Subtotal 1)*	\$ -	0%
8c	Clearing and Grubbing (0% to 5% of Subtotal 1)*	\$ 106,020	5%
8d	Demolition (0% to 5% of Subtotal 1)*	\$ 117,800	5%
8e	Removal of Miscellaneous Items (0% to 5% of Subtotal 1)*	\$ 117,800	5%

<sup>\*</sup> Suggested ranges; use % closest to calculated estimate.